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ABSTRACT

At the end of a 3-year period a diagnostic and resource center and its services were evaluated. Questionnaires, tests, case histories, interviews, and rating scales indicated that the center was effective in creating an awareness of diagnostic needs and programs and in providing educational programs, psychological services, medical services, and therapy for handicapped children. The following supportive services were provided: parental counseling, consulting for supplementary and/or regular classrooms, resource materials and equipment, and mobility orientation. In addition, placement was provided for nearly 200 pupils; academic growth was shown; pupils improved in skill areas, attitudes, and ability to function in group activities; and 53 pupils were able to return to regular classroom programs. Reactions to all services were commendatory, efficient diagnostic and screening procedures were developed, and effective classroom programs were established. The project demonstrated that a school oriented center could coordinate activities involving schools, patrons, and community agencies. (Author/JM)

ED034343

FINAL
EVALUATION REPORT

Special Education Diagnostic And Resource Center Project

ESEA TITLE III

Unified School District 259

Wichita, Kansas

August, 1969

EC004696E

ED034343

ESEA TITLE III FINAL EVALUATION REPORT

SPECIAL EDUCATION DIAGNOSTIC AND RESOURCE CENTER PROJECT

1966-69

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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Project No. 66-1090

Submitted to the U.S. Office of Education

By
Board of Education, Unified School District 259
428 South Broadway, Wichita, Kansas 67202

August 1969

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Wichita, Kansas

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ABSTRACT OF ESEA TITLE III FINAL EVALUATION REPORT

The Title III project provided for a three-year period of operation: A diagnostic and resource center, special classes, diagnostic and evaluative services, and supportive services for handicapped children and youth. Additional services were provided for visually handicapped and blind pupils. Pupils were referred to the Center by public and non-public schools or parents in the area served by the project.

Test and non-test sources of data were used in discovering the extent to which project objectives were reached. Tests were used to assess programs in academic achievement, mental maturity, and physical fitness. Other sources of data over the three-year period included records of various kinds, case histories, rating scales, interviews, and questionnaires.

The Diagnostic Center staff apparently did an effective job in creating an awareness of the need to identify and provide programs for handicapped children in the project area. The Center staff was limited in number and amount of time to do a maximum job due to the physical size of the project area.

Evaluative and diagnostic services were provided to expedite the proper educational placement and/or therapy for handicapped pupils referred to the Center. Psychological and medical services were provided on a contractual basis through community agencies and private practitioners. A large number of referrals was processed each year by Center personnel. Reactions to these services were generally favorable with most of the parents, teachers, and other school personnel who were surveyed feeling that these services were helpful.

Supportive services were provided in the following areas: Counseling for parents and others, consultive services for supplementary and/or regular classrooms, resource materials and equipment, equipment and materials for the visually handicapped or blind, and mobility orientation for the blind. Many pupils, parents, teachers, and other school personnel were served either directly or indirectly by the Center staff. Reactions to all services were commendatory for those receiving these kinds of services. Direct consultive services, services of the social workers, and services provided for the visually handicapped or blind pupils were noted as outstanding.

The supplementary classroom program provided the focus of efforts on pupils referred to the Center. Placement was provided for nearly 200 pupils during the three-year period in six different groupings of handicaps. Evidence of academic growth was shown in most classrooms each year according to pretest and posttest measures used. Non-test sources of data indicated that many pupils improved in skill areas, attitudes, and ability to function in group activities. The fact that 53 pupils had shown enough improvement to return to regular classroom programs provides evidence of the success of the supplementary classroom program.

Experimental and discovery efforts were limited by time commitments of the personnel involved and the lack of appropriate facilities to perform experiments. Each of the curriculum consultants was able to make some research efforts. Additional study would be required to confirm initial efforts. Some teaching techniques, special materials and equipment were reported as being useful. Instruction was primarily individualized or given in small groups. Materials and equipment used were not identified as being effective for an entire group.

The project did demonstrate that a school oriented center could effectively coordinate activities and services involving schools, patrons, and community agencies. Efficient diagnostic and screening procedures were developed, and effective classroom programs were established.

CHAPTER I

INTRODUCTION

The Title III project in the greater Wichita area provided a Special Education Diagnostic and Resource Center for a three year period of operation. This Center had the responsibility of coordinating school and community services for handicapped children and youth. Activities included in the project were: (1) creating an awareness of need for appropriate programs throughout the area served, (2) developing highly specialized diagnostic and supportive services, (3) establishing supplementary programs for handicapped pupils, and (4) implementing a continuous experimental and evaluative program.

Handicapped children and youth were defined as persons ages 3 - 21 who were educationally, mentally, emotionally, socially, or physically impaired to the extent that progress in an existing program could not be made at a rate expected of most children in that age group. Services provided by the Center included psychological, medical, and social evaluation, counseling, consultative and therapeutic activities, and assistance in operation of a supplemental classroom program for handicapped pupils.

The project area served by the Diagnostic and Resource Center included thirteen unified school districts as well as thirty private and parochial schools. Sedgwick County and portions of six adjacent counties were involved, with public and nonpublic schools participating.

A total pupil population of approximately 100,000 was served in the project area.

OBJECTIVES OF ESEA TITLE III PROJECT

1. To provide evaluative and diagnostic services to facilitate the proper educational placement and therapy of handicapped children and youth.
2. To provide supportive services to enable handicapped children and youth to enter, remain in, or reenter appropriate educational or training programs.
3. To provide supplemental programs for severely handicapped children and youth.
4. To discover effective child study and child adjustment procedures for handicapped children and youth.

PROCEDURES FOR ATTAINING OBJECTIVES

An existing structure, a previously used school building, was utilized as a Special Education Diagnostic and Resource Center. Professional personnel housed in this structure included the Center coordinator, a coordinator for psychologically handicapped, a coordinator for physically handicapped, staff school psychologists (two positions), social workers(two positions), art consultant, music consultant, physical education consultant, resource materials consultant, librarian for Visually Handicapped and Blind Library, and a peripatologist consultant. Services of a psychometrist used in evaluative and diagnostic testing were purchased through one of the local agencies.

During the first year of operation, a referral system was developed to make diagnostic and evaluative services available to children and youth both in and out of school. Background information was gathered and submitted on a referral form which was revised at the beginning of the second year. A revised screening procedure to process the many referrals submitted was begun in December, 1967. The project director along with the coordinators, social workers, and psychologists met each Friday morning to screen the referrals submitted that week. Some preliminary recommendations were made at this time,and the school or agency making the referral was notified of the action taken.

Supplementary classroom programs were provided in the following areas: learning disabilities at primary, middle grade, and junior high school levels; hearing handicapped at preschool and primary levels; severely orthopedically handicapped, secondary school age; emotionally disturbed, middle and upper elementary grade levels, junior high school level, and emotionally disturbed retarded youth ages 9 - 11; trainable mentally handicapped, secondary school level; and Negro underachiever, sixth and eighth grade levels. During the second year the junior high emotionally disturbed room and the eighth grade Negro underachiever room were discontinued. Qualified and specially trained classroom teachers along with classroom aides in some classes were selected for placement in the supplementary classrooms. Instruction geared to the needs of the individual pupil was provided along with supportive services by members of the Center staff.

Supportive services by members of the Center staff were also provided in the following areas: counseling for parents of pupils referred to the Center; teachers other than those assigned to a supplementary classroom program; in-service growth programs; and consultative services in art, music, physical education, speech, and resource materials. Mobility and orientation for blind pupils and materials and aids for visually handicapped or blind pupils were additional supportive services provided. Other supportive services were purchased on a contractual basis for medical and psychological services for cases where parents were unable to pay all or part of this type of service.

Evaluation of instructional methods and/or materials and equipment was a function of all personnel on the Center staff. The Center staff encouraged the regular classroom teachers, as well as supplementary classroom teachers, to experiment in the use of teaching techniques, instructional materials, or equipment. The effectiveness and appropriateness of techniques, materials, or equipment was a major goal in the project.

EVALUATION

The evaluation of the Special Education Diagnostic and Resource Center project during the first two years incorporated the determining of the effect upon the following: (1) diagnostic and supportive services for appropriate placement and educational planning; (2) educational growth and personal adjustment of the clients of the Center; (3) ability of parents and youth to attain the goals of education; and (4) the development of innovative and/or exemplary methods and procedures.

Test and non-test types of data were utilized in the evaluation of project activities. Test data from the first year provided a base line from which succeeding test data could be compared. In some cases a different type of test or modification was used so that a new base line was established. Non-test sources were utilized to get information about pupil growth and adjustment. Reactions of persons involved in working directly or indirectly with the Center and participation and utilization statistics were also obtained.

Limitations inherent in the evaluation of programs for the pupils in the supplementary classrooms include: (1) small groups, limited control procedures, and atypical pupil characteristics; and (2) lack of appropriate measuring instruments and norms for handicapped children.

The major thrust of the project was that of service — diagnostic, supportive, and special placement of handicapped pupils. Three of the four project objectives related directly to serving handicapped pupils referred to the Center. During the first two years, the Center processed 1,783 referrals from public and non-public schools, including those received from community agencies and parents. Reactions from teachers, principals, other school personnel, parents, and others were favorable regarding the diagnostic and evaluative services provided by the Center.

Supportive services were provided in the form of individual consultation, consultant services, and in-service growth programs. Surveyed reactions indicated, for the most part, that these services were helpful for those receiving the services. The curriculum consultants who were scheduled to serve the supplementary classroom program, therefore, served only those requests time would permit in the project area. The consultants did serve others more effectively through in-service growth program participation. During the first two years, a total of thirty-three programs, including sixty-four different sessions were provided. The duplicated count of persons attending those sessions for the two-year period was 3,010.

The supplementary classroom program provided between nine and thirteen supplementary classrooms each year for special placement of handicapped pupils referred to the Center. Many of these pupils, in all probability, would have been unable to remain in the programs available in the regular school setting. Approximately 150 different pupils were accommodated the first two years with 42 of those progressing sufficiently to be returned to regular school programs. The progress pupils were making, in terms of quantifiable evidence, was increasing in certain academic areas in some of the classrooms by the end of the second year. However, the usefulness of available instruments and lack of norms for handicapped pupils hampered efforts to present results in a form other than individual comparisons.

A variety of methods, techniques, and procedures for working with handicapped pupils were used during the first phases of the project.

The variety in types of pupils served and the severity of some handicaps made it difficult to generalize about techniques and procedures found effective individually. The individual diagnostic approach was used and techniques and procedures were determined on an individual basis.

The first two annual reports pointed out areas of attainment or partial attainment of the four project objectives. To briefly summarize here, it appeared at the end of the second year the first three objectives had been attained to the greatest extent while the fourth was attained to the lesser degree.

This final report will be addressed more toward an overall look at how effective the procedures presented in the project proposal were in accomplishing the goals of the project.

CHAPTER II

CREATING AWARENESS OF NEEDS OF HANDICAPPED CHILDREN AND DEVELOPMENT OF PROGRAMS IN THE PROJECT AREA

The project proposal established one area of activity as that of creating an awareness of need for appropriate programs for handicapped children in the project area. The initial approach involved making people in the project area aware of the kinds of handicaps many children have and that educational or training programs could be developed to better serve and meet the needs of such individuals.

Notification of available services was distributed to all schools, public, private, and parochial in the project area. Small teams of Center personnel met with superintendents, principals, and school staffs in an effort to make known those services available through the Center. During the first two years, approximately 5,000 unsolicited requests for information were handled by Center personnel. Nearly 500 visitors were received during the same period of time. Local newspapers and other media carried several accounts of the activities and services provided by the Center.

In-service training programs were also effective in arousing an interest in identifying and assisting handicapped children in the project area. Although most of the in-service programs were held at the temporary location of the Center, several were held for particular school staffs or school personnel in a particular school district at their facilities. A wide variety of programs were planned and held during the first year or more. A survey of those attending indicated a large preference for the workshop demonstration type of program on special methods and/or materials conducted by local personnel.

Thirty-three in-service programs were provided for parents, agency representatives, and school personnel in the project area the first two years. The consultants, staff school psychologists, and other staff members served on call to provide information to school personnel and others about the need for special programs for handicapped children.

Needs for other special services were made available through the work of the peripatologist consultant. His services were regional in nature with much of the service provided in the project area. This service, along with the developed state center for materials and equipment for visually impaired and blind, provided a further means of making school personnel and others aware of the needs of many children in the schools today.

An advisory council for the project was organized early in the project. This council was created for the purpose of providing a vehicle for communicating the needs to the project area in addition to assisting in decisions for operating the project. The council was composed of representatives from each of the school districts or individual schools, public, private, or parochial, and representatives from each of the participating community agencies and the State Department of Public Instruction. Several of the school administrators from participating schools became keenly aware of the need to provide special classrooms to help provide for the needs of these children.

One measure of the effect the Center had on creating an awareness of need for identifying and providing for handicapped children is the number of programs, special classes, professional personnel, etc., added to or created in the outlying and participating schools or school districts. The data gathered in these schools regarding numbers, etc., and the opinions of administrators and other school personnel regarding the influence of the Center provided the basis for evaluation in this aspect of the project.

PRESENTATION OF EVALUATIVE DATA

Near the end of the third year, a structured interview was conducted with the superintendent and/or another key person on the staff of the participating public school districts. Twelve unified districts were included outside the Wichita district. In addition, the same interview questions were used for interviews with eight principals, randomly selected, of the twenty-nine private and parochial schools which had participated in the project. A list of the interview questions appears in Appendix A.

Twenty-eight community agencies were involved in planning, cooperating, and participating in the Diagnostic Center project during its three-year operation. Ten of these were selected at random to be interviewed regarding their reactions in terms of agency involvement, community or agency support, need for such services, services the Center used the agency for, and level of services provided by the agency. Questions asked of community agency representatives are presented also in Appendix A.

General reactions to the project were also solicited during the interviews with the superintendents, principals, or other school personnel. A listing of these general reactions was made, and three statements randomly selected from each list for presentation are as follows:

General reactions - area superintendents

"Parents accept an evaluation better from an outside agency than when one is done locally."

"One elementary school staff adopted the staffing procedure for case discussion involving the people who come in contact with the pupil. Not that they were putting themselves in the trained clinician's shoes, but I'm sure a lot of ideas they came up with were successful and it caused unity among the staff members."

"Services that we used the most were the evaluative and diagnostic services."

General reactions - private and parochial principals

"Parental reaction has been good with but few exceptions."

"We definitely have a lack of funds that prevent us from employing additional special personnel."

"Anyone we have referred to the Center, they have taken care of the problem and helped."

The amount and type of reaction to specific interview questions varied greatly between superintendents, principals, and agency representatives.

Only two of the twelve school districts added special services personnel, and three of the twelve districts initiated special classroom programs which could be attributed to the influence of the Diagnostic Center. Part of the problem related by the various superintendents was tied to budgetary limitations in their district, availability of trained personnel, and classroom space to house and equip a special classroom program. Another problem associated with beginning of special programs was that the need was not sufficient for only one particular type of handicap in a given district to warrant going ahead with a program. Therefore, most of the efforts in establishing special classrooms were done on a cooperative basis with three or four districts attempting to provide classroom programs or special services on a shared basis.

Most of the superintendents were knowledgeable of and aware of the number of pupils in their district for whom the Center had provided service. One-half or more of the superintendents were aware of the frequency of special services such as testing, consultive services, and in-service training activities the Center or personnel from the Center had provided over the three-year period. Two-thirds of them felt that teachers and prinicpals in their district were aware of the services provided by the Center.

The project proposal had earlier stated that the needs in the project area, in terms of the number of pupils who need assistance or fall into a specific handicap area, was about five percent of the pupil population. One-half of the superintendents now see their needs as being greater now than they were before the project started. Nearly half see their needs about the same or less. Some comments to the effect that we may now recognize and can identify various handicaps earlier may contribute to the feeling that one-half now see their needs as being greater than before.

Nearly all indicated plans for programs to take care of handicapped pupils in their district. About half of the respondents said that Center personnel had assisted in those plans in some way.

All of the superintendents felt the project was successful and would like to see it continued. However, only one district gave an indication of being able to lend some financial support for continuing the efforts of the Center at the same level it has operated for the past three years.

Of the eight schools in the random selection of private and parochial schools, three had new principals for the past year and were not totally familiar with the Diagnostic Center project or the services provided by the Center. The principals did react to most of the interview questions. In the area of adding personnel which could be attributed to the influence of the Diagnostic Center, two of the eight indicated a slight reorganization of staff which seems to better meet the needs in their situations but was not the addition of special personnel. One was utilized as a floating teacher to assist in academic areas and the other was used to lessen the number of pupils per teacher. Most of the principals were aware of the number of pupils referred and felt the Center had provided the needed help in those cases. Less than half of the respondents felt that their teachers were totally aware of all the services provided by the Center. Half to three-fourths of the principals acknowledged in-service training activities provided by the Center at their school or at the Center. Half the principals knew that teachers had used materials and/or equipment provided by the Center and felt their teachers accepted the suggestions for usage and made use of them on a loan basis. Three-fourths of the principals felt that their needs in terms of the number of children in one or more of the handicapped areas was greater now than when the project began. Only one-fourth had formulated plans to take care of handicapped pupils in any way, and these plans were assisted by personnel from the Center. None of the principals had any notion as to how they could possibly afford any financial assistance in support of continued operation of the Center or its services.

Six of the ten agency representatives interviewed indicated being involved in the planning activities for the project. These activiities varied from providing consultative assistance or supplying additional information and recommendations to helping write parts of the proposal and helping deliver the proposal to Washington D.C.

In reacting to the percentage of the pupil population in need of special services or pupils who are handicapped in some way, three agency representatives viewed a tendency toward more pupils needing the type of services the Center had provided. Three other representatives saw no decrease in the need but included such comments as, "I have no real basis for saying what the needs might be," or "The need is at least as great as it was when the project started," or "Many pupils may not be diagnosed as needing help because they are not a part of the pupil population attending a school."

A question was asked to determine how the Diagnostic Center utilized the services of some of the community agencies. Some of the services requested were: (1) assistance in post special education class placement, (2) arranging eye examination, provision of glasses, medical check-ups, etc., (3) provision of family consultation, and (4) provision of direct services.

All agency representatives indicated that the level of services they provided for school age children was at least the same as, if not greater than, the level before the project started. The agency providing the coordination of psychological services had an increase in services in addition to the extra referrals from the Diagnostic Center. Apparently all agency services for the Diagnostic Center were supplementary to the services regularly supplied for the school age population.

None of the agencies interviewed indicated any immediate outlay of financial resources to continue the operation of the Center. Some potential funds through the county and United Fund Agency were indicated as two possible but as yet indefinite sources of revenue to provide some of the services the Center provided.

COMMENTS

The question of how effective has the Diagnostic Center been in creating the awareness of need for identifying and providing for handicapped children in the participating school districts as well as the private and parochial schools was measured subjectively through opinions and reactions of key school personnel involved in those districts and schools. An indication of action on the part of school districts or schools to develop and provide programs or special personnel is one objective measure of the effectiveness the project had in creating the awareness of the need for such action on the part of those participating in the project. Some knowledge of what kinds and how many services of the Center were utilized in the school or district may be another indication of how well the Center created the awareness of the need for services among school people participating in the project.

CONCLUSIONS

It is evident that the Diagnostic Center staff helped to create an awareness of the need for identifying and providing for the handicapped child in the project area in view of the opinions expressed by chief administrators in participating schools and school districts. The Center staff was severely limited in number and amount of time to do a maximum job in this area due to the physical size of the project area and the total pupil population.

Community agencies were definitely aware of the quality and types of services the Center had provided and some are, of necessity, planning to provide more services since all of these pupils will not be provided for by the Diagnostic Center in the future.

CHAPTER III

DEVELOPMENT OF EVALUATIVE, DIAGNOSTIC AND SUPPORTIVE SERVICES

EVALUATIVE AND DIAGNOSTIC SERVICES

One of the goals of the project was the development of highly specialized diagnostic and supportive services. Surveys of schools and agencies earlier had revealed the need for providing these services.

OBJECTIVES
EVALUATIVE AND DIAGNOSTIC SERVICES

1. To obtain information needed to formulate an educational plan.
2. To evaluate all available information and recommend supportive services, placements, and procedures.
3. To involve parents, teachers, and others in the implementation of the recommendations.

A referral system was developed in order to make the services of the Center available to all schools and agencies in the project area. In order to obtain the needed information, a referral form was utilized. The form initially used was revised by the end of the first year of operation so that more complete background information was available to the Center staff. A complete description of the referral process and information gathered was presented in the second annual evaluation report.[1]

As reported in the first annual evaluation report, based on the responses of those surveyed regarding the services of the Center, extensive progress had been made toward each of the three objectives for evaluative and diagnostic services. Some major problems encountered were: (1) delay in handling referrals and (2) communication problems between the personnel involved. The second annual report revealed that these problems had been solved to some extent, based on reactions of those responding who are vitally involved in the referral procedure.

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[1] Walker, Ralph E. and Liechti, Carroll D., Evaluation Report, Special Education Diagnostic and Resource Center Project, ESEA Title III (1967-68), pp. 2.8-2.15.

Medical and psychological contracted services were provided for pupils whose parents could not afford all or part of the costs of these services and became a valuable aspect of the project. Psychological services included evaluative and/or therapy sessions.

Parents were involved in the evaluation process to the extent that they provided family background and some medical background, primarily through social histories collected by the social workers. Occasionally, parents would contact the Center directly to initiate the referral process. If testing and evaluative procedures were conducted by the Center personnel, parents were frequently contacted to supply the additional information necessary regarding the pupil's past achievement, attitudes, etc. Many cases involved the parents in transporting the pupils across the city or county in order to have the pupil participate in one of the supplementary classroom programs.

The staffing and re-staffing procedure for placement and/or other recommendations involved the teacher, counselor, and principal of both the sending school and the receiving school. The staffings served two purposes: (1) as a method of disseminating information about pupils and (2) as an evaluation or placement and/or procedure recommendation session.

PRESENTATION OF EVALUATIVE DATA

Information was gathered for a total of two thousand three hundred seventy-one pupils referred to the Center over the three-year period. The breakdown for each year and the total by referral source is given in Figure 1. One hundred ninety-three pupils of those referred to the Center were recommended for placement in the supplementary classroom program. Figure 2 shows the number and percentage of pupils according to the source of referral. Of the one hundred ninety-three pupils who were placed in the supplementary classroom program, twenty-eight also received contracted psychological services, twenty-three received contracted medical services, and seven received both psychological and medical contracted services provided by the Center.

Forty-eight physicians, one dentist, and ten clinical psychologists or psychiatrists were involved in providing the contracted services for the Center. Figure 3 presents the numbers, costs, and percentages receiving psychological or medical contracted services paid for Title III funds each year and the total for three years. The counts for the second and third years and totals are duplicated counts since some pupils received services which carried over from the first year to the second and some from the second year to the third.

Reactions of school personnel and others regarding the evaluative and diagnostic services were reported in each of the first two annual reports. Those reactions were summarized here with the assumption that the feelings have not changed since last reported.

FIGURE 1

TITLE III REFERRAL INFORMATION

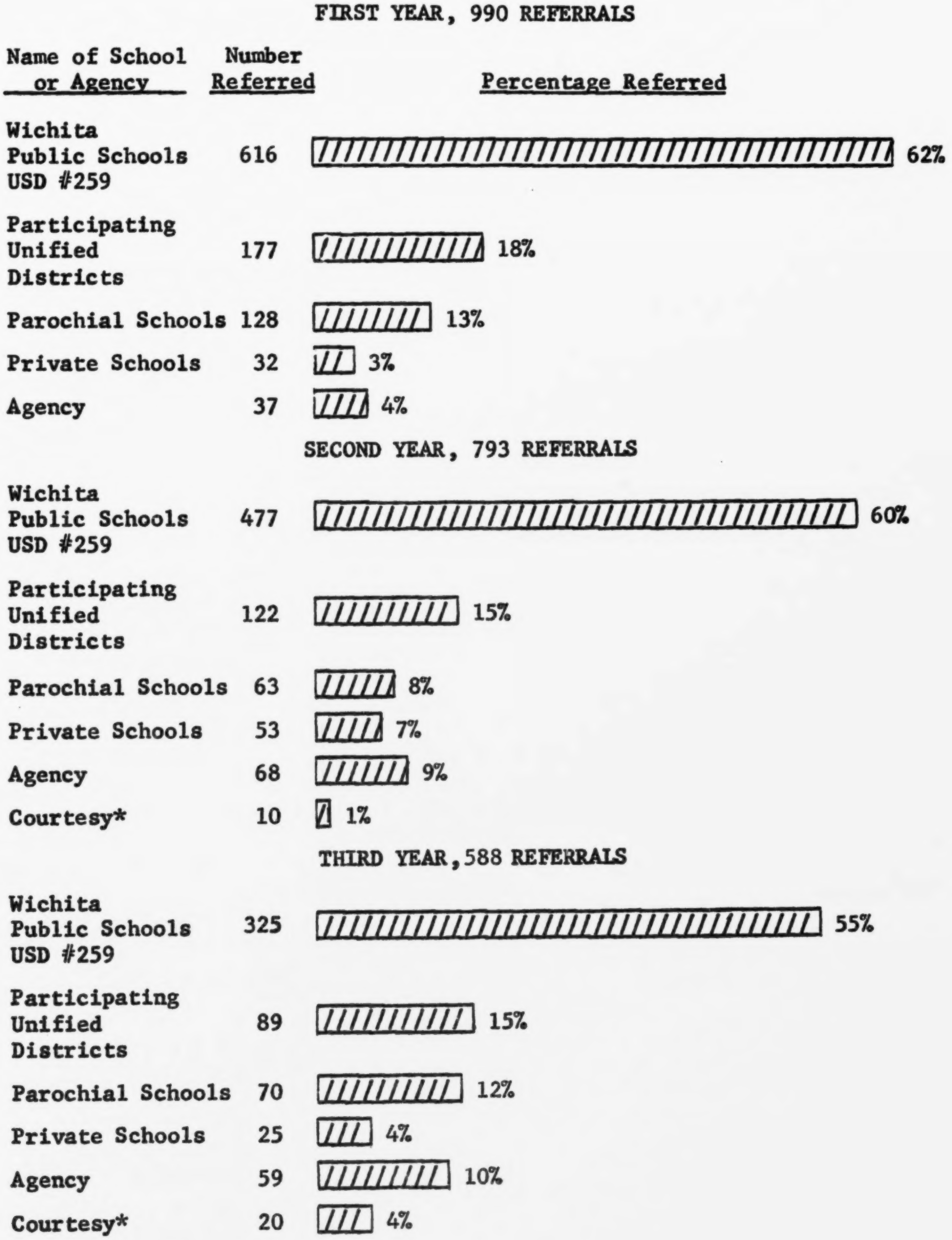
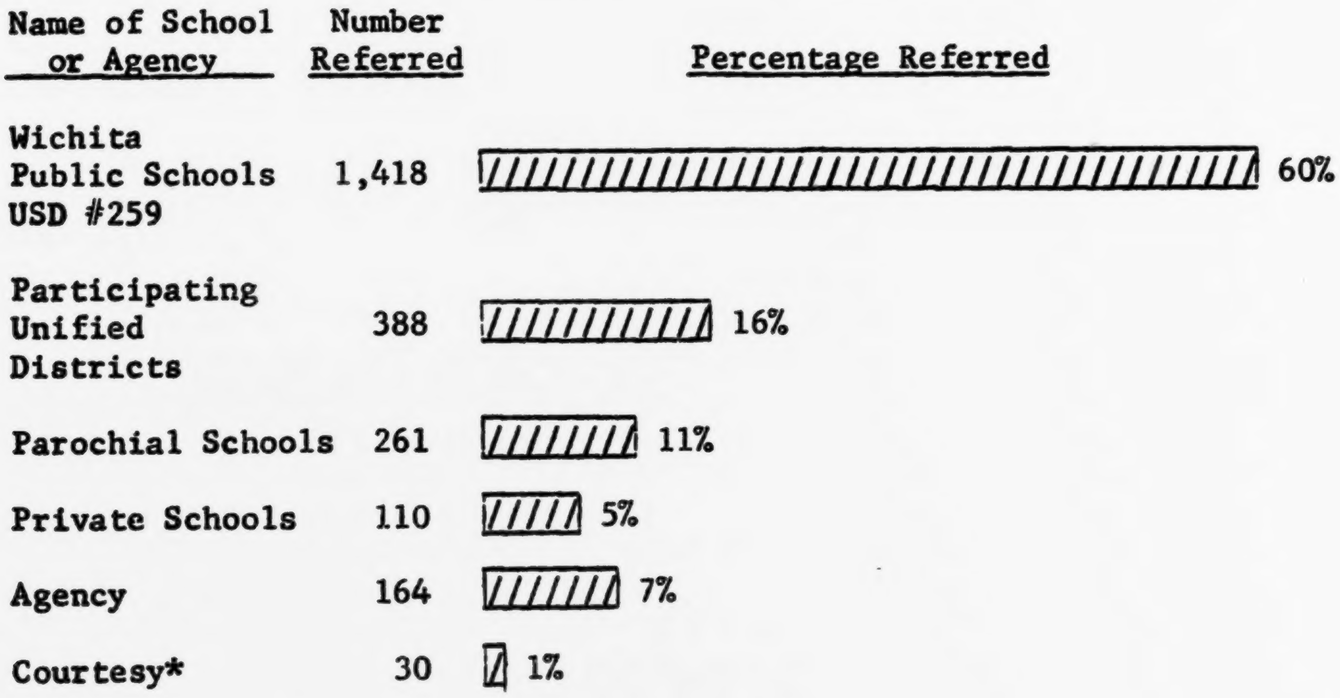


FIGURE 1 (Cont'd)

TITLE III REFERRAL INFORMATION (Cont'd)

TOTAL FOR THREE YEARS, 2,371



*Services for pupils outside the project area.

FIGURE 2

TITLE III

SUPPLEMENTARY CLASSROOM PLACEMENTS (193)

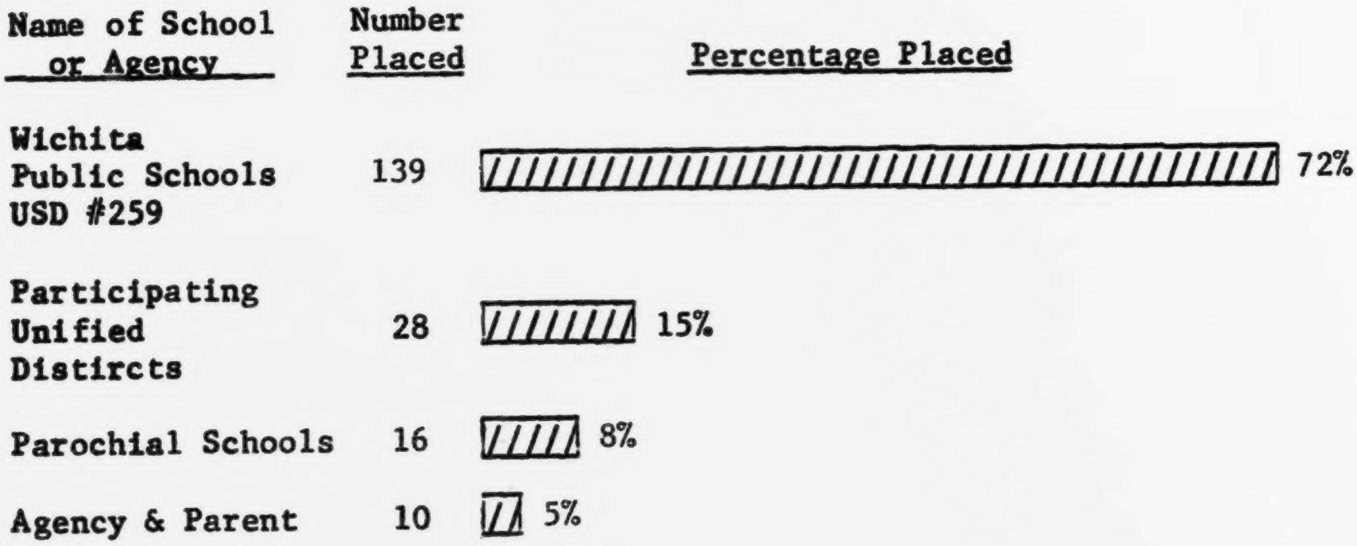


FIGURE 3

CONTRACTED SERVICES

FIRST YEAR (324)

Type of Service	Number Served	Percent Served	Cost of Service	Percent of Cost
Medical	153	47%	$16,689.95	28%
Psychological	171	53%	43,552.75	72%
		Total	$60,242.70	

SECOND YEAR (555)

Type of Service	Number Served	Percent Served	Cost of Service	Percent of Cost
Medical	189	34%	$22,401.97	23%
Psychological	366	66%	74,054.60	77%
		Total	$96,456.57	

THIRD YEAR (403)

Type of Service	Number Served	Percent Served	Cost of Service	Percent of Cost
Medical	95	24%	$ 6,859.40	10%
Psychological	308	76%	64,797.06	90%
		Total	71,656.46	

FIGURE 3 (Cont'd)

CONTRACTED SERVICES (Cont'd)

TOTAL FOR THREE YEARS (1,282)

Type of Service	Number Served	Percent Served	Cost of Service	Percent of Cost
Medical	437	▨ 34%	$ 45,951.32	▨ 20%
Psychological	845	▨ 66%	182,404.41	▨ 80%
		Grand Total	**$228,355.73**	

Various agency representatives, responding to questionnaire and/or interview items indicated a feeling that the evaluative and diagnostic services and procedures were effective and that the information disseminated to school personnel and others appeared to be useful. However, they also expressed a feeling of a lack of sufficient personnel at the Center to handle the load of the large number of referrals the Center received.

School counselors, primarily in the Wichita Public Schools, pointed out early that "feedback" information on the referrals was much too slow. They felt, as did the agency representatives, that too few persons were available on the Center staff to handle properly all the referrals the Center received. The counselors disclosed, however, that the information and recommendations returned from the Center were clearly stated, complete, and useful. A large majority of counselor respondents indicated that pupils in their schools had received medical and/or psychological services contracted by the Center. They also noted that they had observed changes in school adjustment in those pupils who had received those services.

A large majority of teachers, parents and principals considered the information and recommendations received as a result of the evaluation and diagnosis provided by the Center as helpful or very helpful. Other school personnel, such as school nurses and speech clinicians, rated the information from the Center as useful, clear, and complete.

Parents surveyed registered feelings of being adequately involved in formulating educational plans for their children and appreciative of what most of them considered as helpful medical and/or psychological services. Parents also felt the interviews and contacts with the Center's social workers were helpful or very helpful.

Supplementary classroom teachers and many regular classroom teachers felt the diagnostic interpretations and/or recommendations resulting from the staffings were valuable in dealing with individual pupils.

COMMENTS

Three questions can be asked in terms of the objectives for evaluative and diagnostic services: (1) How effective were the diagnostic and evaluative services provided by the Center? (2) What effects did the placement, procedures, and supportive services, recommended as a result of evaluation and/or diagnosis, have on clients of the Center? (3) How effective was the Center staff in involving parents, teachers, and others in formulating and implementing the recommendations made for the referred pupils?

The effectiveness of the diagnostic and evaluative services is reflected in the continued number of referrals and requests for services during the three-year period. It is apparent that many pupils benefited from these services based on responses of school counselors who worked with them in regular classroom situations.

One measure of the effects of recommendations made for pupils resulting from evaluation or diagnosis is changes in pupils' adjustment, academic progress, and ability to remain in or reenter regular school programs. The primary emphasis of past evaluations has been on pupils in the supplementary classroom programs. Quantifiable data on all pupils referred to the Center were not gathered. The effects of placement in the supplementary classroom program will be discussed later in the section dealing with that program. Apparently, many pupils were able to make favorable progress and adjustments and remain in the regular classroom programs.

The involvement of parents, school personnel, and others in planning and implementing recommended programs and/or procedures for referred pupils was most effective. The development of the staffing procedures and the cooperation received from parents, community agencies, and private practitioners in working with the Center and those referred to the Center were some of the outstanding successes of the project.

SUPPORTIVE SERVICES

Supportive services for this project were proposed in the form of counseling, consultive, and therapeutic activities designed to enhance the progress of pupils in regular and special education programs.

OBJECTIVES OF SUPPORTIVE SERVICES

1. To provide consultation concerning pupil needs and available programs to parents, school personnel, and others.
2. To provide individual and group counseling for parents and pupils.

3. To provide educational and informative programs for parents, teachers, and administrators in the project area.
4. To provide specialized consultation in the curriculum areas of art, music, physical education, and instructional materials and equipment.
5. To provide assistance in mobility and orientation training for the visually handicapped pupil.
6. To provide library service and materials for the partially sighted and blind pupils.

The Center staff provided supportive services in the following areas: (1) counseling for parents of pupils referred to the Center; (2) consultation for teachers in the regular and supplementary classroom programs and others requesting this service; (3) in-service growth programs; (4) regular consultive services in art, music, physical education, and resource materials for teachers in the supplementary classroom program; (5) mobility orientation and special equipment for blind pupils; and (6) materials and instructional aids for visually handicapped or blind pupils.

Counseling services for parents were provided by most members of the Center staff. Parents and/or pupils were invited to the Center individually or in groups. Special consultive services were provided by consultants in the areas of art, music, and physical education. Resource materials were provided for teachers in the supplementary classroom programs or those teachers in regular classroom programs requesting such service. A wide variety of in-service growth programs were provided for teachers, administrators, parents, and others. Services were provided in the project area by a regional peripatologist consultant. These included providing special materials and equipment as well as mobility orientation training for blind pupils. A library for special instructional materials for visually impaired and blind pupils was housed in the temporary location of the Diagnostic Center. Even though the library provided service to pupils throughout the State, much of the service was provided in the project area.

PRESENTATION OF EVALUATIVE DATA

Each member of the diagnostic staff performed some counseling service for parents and others by personal interview, phone conversation, or group counseling sessions with parents or pupils in individual schools. An accurate record of the number of counseling sessions held during the three-year period was not available. However, it was estimated that approximately one thousand counseling sessions did occur during the project operation period.

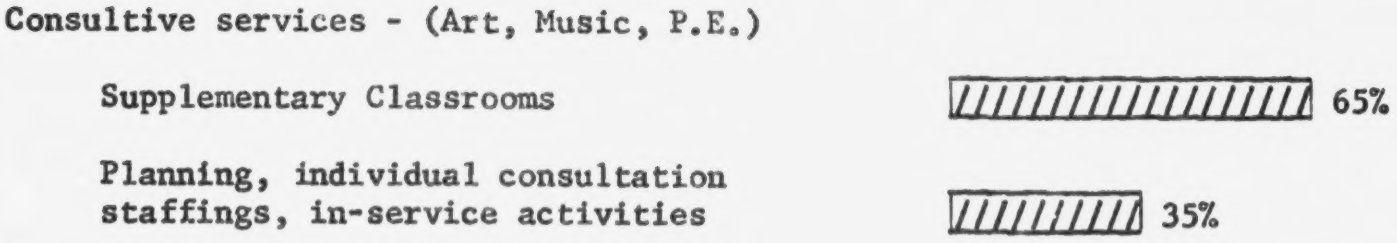
Reaction to counseling services were obtained each of the first two years of operation. During the first year, fifty-four percent and during the second year, seventy-two percent of the parent respondents considered counseling services provided by the Center staff helpful or very helpful.

Figure 4 shows the approximate proportion of time spent by the consultants in art, music, and physical education.

FIGURE 4

TITLE III CONSULTIVE SERVICES

AMOUNT OF TIME SPENT



Specialized consultive services were provided primarily in the supplementary classroom program. Each of the curriculum consultants visited each supplementary classroom either weekly or bimonthly during the project period. Similar service for regular classroom teachers in the project area was limited due to time available for each consultant and the distance and travel time involved in the project area. Requests for individual service by the consultants were filled approximately ninety times during the three-year period. The consultants also played an important role in providing group consultation through in-service growth programs for teachers and others in sessions held at the Center or in school or district meetings in the project area. The curriculum consultants also served on the evaluation and admission's committee and served on the staffing committee for evaluation of progress of pupils in the supplementary classroom program.

Indications were, from those who received the services of the curriculum consultants, that the services that were provided were either helpful or very helpful.

The resource consultant provided materials and special equipment for pupils, parents, teachers, and others. During the third year of the project, the resource consultant also served as an intern for the Dissemination Project, University of Illinois. Earlier surveys regarding the services of the resource consultant or materials and equipment supplied through the resource center indicated that those receiving direct service from the consultant considered the service helpful. Fifty-two percent of the non-Title III teachers surveyed rated the materials and/or equipment available as helpful to very helpful while fifty-six percent of the principals surveyed rated the materials and/or equipment the same way.

FIGURE 5

TITLE III RESOURCE MATERIALS USAGE

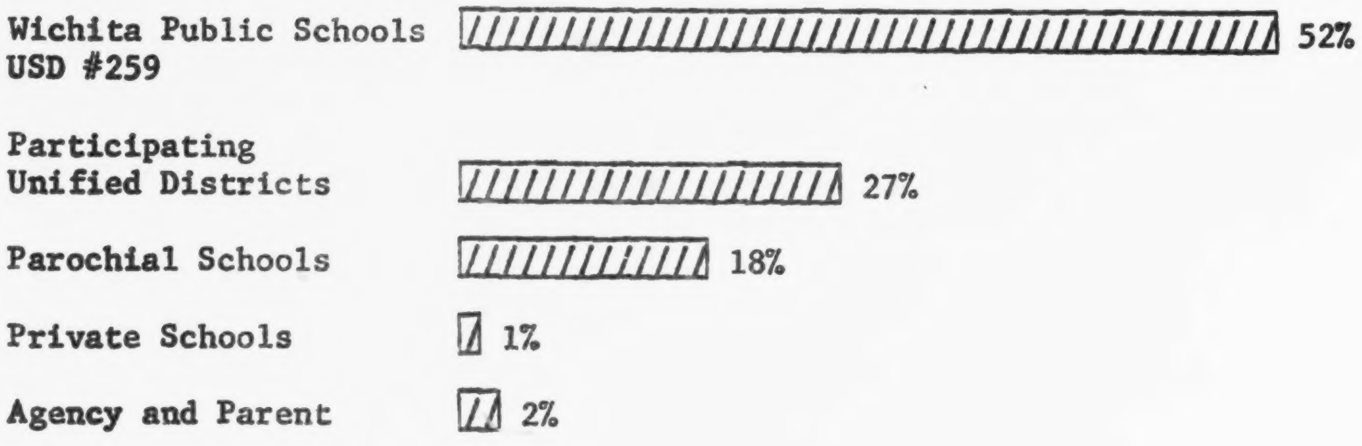


Figure 5 indicates nearly half of the usage, based on material and/or equipment checked out from the resource center, was evident among persons not directly connected with the Wichita Public Schools. This may be partly due to the effort which was made to reach and serve other areas first. Also, many Wichita schools already had or had ordered the material or equipment they needed rather than borrow it.

One portion of the supportive services was devoted to providing in-service training programs for teachers, administrators, parents, and others. Over the three-year period, a variety of types of programs were presented to school personnel and others from all parts of the project area. Nearly three thousand five hundred people were registered as attending these programs. This is a duplicated count since many people attended more than one session and/or more than one program. Table 1 shows the number of programs, the number of sessions involved, and the total attendance for each of the three years of operation, along with totals for the three-year period and a breakdown by type of the number of sessions held in each category.

TABLE 1

IN-SERVICE TRAINING PROGRAMS FOR THREE-YEAR PERIOD

	Number of Programs	Number of Sessions	Number Attending
First Year	16	27	1,443
Second Year	16	37	1,567
Third Year	5	15	419
Totals	37	79	3,429

Type of Program Presented	Number of Sessions
1. Workshop for:	
a. Teachers	14
b. Administrators	6
c. Counselors, nurses, and others	7
2. Outside consultant or authority in special area or field	19

TABLE 1 (Cont'd)

Type of Program Presented (Cont'd)	Number of Sessions (Cont'd)
3. General training session	14
4. Demonstration session	10
5. Presentation of special program	9
Total	79

It is evident from Table 1 that there was a reduction in the number of in-service programs presented the third year of the project. In spite of this there appeared to be a fair balance between the types of programs presented. Workshop activities accounted for thirty-four percent of the sessions presented. Slightly less than one-fourth (twenty-four percent) involved using a well-known speaker or authority in a special field. The programs involving training in special testing or techniques; the programs involving demonstration of materials and teaching techniques for using materials; and those merely presenting the special programs that are available or can be developed accounted for the remaining forty-two percent of the sessions provided.

Reactions to the in-service training programs obtained earlier indicated that most (approximately eighty percent) of those who attended them rated the programs as being good. Attendance figures reveal that for the three-year period, the average attendance per session was forty-three and the average attendance per program was ninety-three.

Another aspect of the in-service training programs was the requested talks, explanations, or demonstrations performed by a member of the Center staff. Those requests were filled for administrators, teachers, P.T.A.'s, etc. The curriculum consultants were involved in one hundred twelve sessions with an average attendance of eighteen; the coordinators were involved in one hundred eighty sessions (including staffings) with an average attendance of nine persons; the psychologists and social workers were involved in nineteen sessions with an average attendance of twenty-five people during the third year of operation.

The peripatologist consultant assisted school personnel and parents with pupils who were visually handicapped. His activities involved identifying the type and extent of the visual problem, provision of materials and/or equipment for teachers and others to aid the pupil in academic and/or recreation areas, and providing mobility training directly to pupils in need of this training.

Direct training services were provided for seventeen pupils during the second year of the project and nineteen pupils during the third year. Of these, eighty-one percent were residents in the project area. A summary of services for each year and totals for the two-year period are given in the following table.

TABLE 2

SERVICE PERFORMED BY PERIPATOLOGIST

1967-68

Type of Service	Number Performed	
	In Project Area	Outside Project Area
1. Parent counseling	22	6
2. Staff conference	33	9
3. Orientation-mobility or related services	20	3
4. Furnish materials-equipment	29	8
5. Referrals, evaluations, etc.	10	1
6. Total pupil contacts	423	38

1968-69

Type of Service	Number Performed	
	In Project Area	Outside Project Area
1. Parent counseling	27	16
2. Staff conference	45	19
3. Orientation-mobility or related services	31	7
4. Furnish materials-equipment	56	18
5. Referrals, evaluations, etc.	35	6
6. Total pupil contacts	365	46

Total Services 1967-69

Type of Service	Number Performed	
	In Project Area	Outside Project Area
1. Parent counseling	49	22
2. Staff Conferences	78	28
3. Orientation-mobility or related services	51	10
4. Furnish materials-equipment	85	26
5. Referrals, evaluations, etc.	45	7
6. Total pupil contacts	788	84

Table 2 indicates that the services provided both in the project area and outside the project area were increased in all categories of service except one during the past year. Excluding the total number of pupil contacts, the largest portion of services provided in the Wichita area was in the furnishing of material and equipment (twenty-eight percent) while the largest portion of services provided outside the project area was devoted to staff conferences (thirty percent). The smallest portion of services provided both in and outside the project area was in the referrals and evaluation category. Ninety percent of the total pupil contacts came in the project area. Ideally, about fifty percent of the services should have been performed outside the project area; however, only about twenty-three percent were performed.

The only evaluation of pupil progress was that performed by the peripatologist. Reports indicate that most pupils receiving direct mobility training were rated by the consultant as making acceptable progress with two or three making exceptional progress.

Cooperative efforts with other funding sources allowed the position of the peripatologist and the librarian and clerical aides to use the Diagnostic Center space as a base for operations. Half the salaries of the personnel involved, all the travel allowance, and supplies and equipment were budgeted through Title III funds. The State Department of Public Instruction, Title II funds, Title VI funds, and Federal Quota Monies were utilized for securing library resource materials and realia for the visually handicapped program. The library served as a regional center which, in fact, serviced the entire State while the peripatologist serviced the Central and South-Central portion of the State.

Initial efforts in the library services area included selection and procurement of materials, establishing a production center, and developing a loan and retrieval system for materials. Since the library serviced the entire State, much of the service was handled by mail requests. However, when possible the librarian did meet with school personnel and others to help determine the needs and provide the materials and/or equipment requested. A summary of services provided by the visually handicapped library program is given in Table 3.

Table 3 shows that the usage of the materials, realia, and equipment doubled during the second year of operation of the visually handicapped and blind library program. Some increase is due to the usage of association items utilized by the person working with the visually handicapped child. The effects of the usage in terms of what changes took place in the pupil's achievement is very difficult to determine. Some of the resource teachers who travel from school to school, or between schools in more than one district, and have used the resources of the library reported favorable progress among pupils using the materials.

The social workers provided social histories and family background information. They also acted as a liaison between the pupils referred and their parents, and various community agencies. Two social workers were available each year with one serving all three years and three different persons filling the second position each year. Complete social histories were compiled on all or nearly all of the pupils who were placed

TABLE 3

SERVICES PROVIDED BY VISUALLY HANDICAPPED LIBRARY PROGRAM

Agencies Served	Number	
	1967-68	1968-69
Wichita Schools		
1. Elementary	11	20
2. Junior High	5	6
3. Senior High	1	5
Private	1	4
Other Cities and Towns	28	47
Individuals	10	21
Universities and Colleges		3
Materials Checked Out	Number	
Books		
1. Regular	689	1,134
2. Large Print	44	102
3. Braille	112	193
Sub Total	845	1,429
Recorded Discs	85	149
Games and Charts	29	37
Magnetic Tapes	28	39
Talking Books	11	24
Encyclopedias (on long loan)	1 set	98vol.
Dictionaries (on long loan)	5	12
Realia	8	74
Perkins Braillers (on long loan)	4	5
Sound Film Strips		42
Visual Aids		88
Tape Recorders (on long loan)		6
Typewriters (on long loan)		6
Testbooks (on long loan)		37
Total Materials	1,016	2,046

in the supplementary classroom program. Complete write-ups were also prepared for approximately four hundred twenty other pupils who were referred, making approximately six hundred cases for the three years. In addition, partial write-ups and investigations were prepared for approximately two hundred other cases. The social workers also served on the evaluative and admissions committee to aid in screening referrals and provide additional information when evaluating cases.

COMMENTS

In terms of the objectives for supportive services, it is evident that all the objectives stated were met and fulfilled. However, the question might be raised as to how well and how effectively all of these services were performed. It would be very difficult to determine objectively the effectiveness of such services. It is evident that reasonable attempts were made by all members of the diagnostic staff to perform and provide services which would be helpful to handicapped children. Those who received the services responded favorably. Many pupils, teachers, administrators, and parents were served either directly or indirectly by individual members of the Center staff or groups of members of the staff. Many opportunities were provided to aid school personnel as groups through a variety of in-service training programs or the staffing procedure involving an "in-depth" discussion of the case for placement or other purposes.

The curriculum consultants provided both direct and indirect services to many pupils, many of whom were not directly referred to the Center. For those pupils in the supplementary classroom program, the direct service by the consultants was beneficial as evidenced later in this report. New approaches to solving some old problems of how to get pupils motivated to learn were apparent through the usage of resource materials and associated consultive service.

Innovative in this area were the services provided for the visually handicapped and blind children. The increased usage and requests for both library and mobility services are evidence that more people are aware of available services, and the need for such services has been thoroughly demonstrated through this project.

Unique services to the schools in this area were those of the social worker. From the reactions of school personnel and parents, as well as cooperating community agencies, the value of the social worker as a member of the team, in the team approach, effectively adds to the quality of service to handicapped pupils.

CHAPTER IV

SUPPLEMENTARY CLASSROOM PROGRAM

The supplementary classroom program was divided into two major categories: (1) psychologically handicapped classes which included learning disabilities, emotionally disturbed, trainable mentally retarded, and Negro underachievers; and (2) physically handicapped classes in the hearing impaired and orthopedically handicapped areas. Any pupil placed in the supplementary classroom program had to be properly referred to the Diagnostic Center. Placement in the psychologically handicapped classrooms resulted from a formal staffing. Placement in the physically handicapped classrooms usually resulted from a mutual agreement between parents, school personnel, and the family physician for trial placement in one of the classrooms.

This portion of the report contains an examination of each supplementary classroom for the three-year period. Each section will view the objectives for that classroom, a brief look at methods and procedures used, pupil information for the three years, test results for three years, and other information related to classroom activities.

LEARNING DISABILITIES - ELEMENTARY LEVEL I

One supplementary classroom for pupils with learning disabilities, grades one to three, was provided during the three-year period. These pupils exhibited unusual behavioral and perceptual handicaps that apparently were not primarily caused by emotional disturbances or social maladjustments. Pupils were included if they had indications of neurological pathology, brain injury, hyperactive behavior, and undifferentiated disabilities.

OBJECTIVES

1. To enable pupils to achieve academically at levels appropriate to age, grade, and intelligence.
2. To improve the pupils' ability to express themselves in non-verbal areas.
3. To discover and devise effective teaching techniques and superior instructional materials for pupils with learning disabilities.
4. To improve attitudes toward self, school, and others.
5. To improve and further develop motor skills and coordination.
6. To improve personal and social adjustments so that successful reentry into the regular classroom can be affected.

METHODS AND PROCEDURES

A structured classroom environment with individualized instruction and an opportunity for self-expression and personal creativity was provided for pupils who exhibited specific kinds of difficulties with learning processes. Academic work was geared to the instructional level of each child. Special work programs were utilized to provide meaning to the tasks the pupil performed. Specialized equipment and materials were used and positive reenforcement for acceptable work and behaviors were maintained so that the pupil had some success experiences.

PUPILS PLACED IN CLASSROOM

Examination of pupil records for the three years revealed the following information about the pupils placed in this classroom:

1966-67

Age range at entrance: 7 years, 2 months to 8 years, 11 months

Race: All Caucasian

Sex: Ten male - one female

1967-68

Age range at entrance: 7 years, 8 months to 10 years, 2 months

Race: All Caucasian

Sex: Eight male - one female

1968-69

Age range at entrance: 8 years, 9 months to 10 years, 2 months

Race: Eight Caucasian - one Negro

Sex: Seven male - two female

A maximum enrollment of eight pupils at a time was maintained even though eleven different pupils were placed the first year, and nine different pupils were placed each of the last two years. The rates of attendance for each year show that during the first year, the attendance varied from a low of forty percent to a high of ninety-nine percent with a median of approximately ninety percent. During the second year, the attendance varied from a low of ninety-one percent to a high of ninety-eight percent with a mean attendance of ninety-five percent. During the last year, attendance figures varied from a low of forty-one percent to a high of ninety-eight percent, with the mean attendance for the group following at eighty-four percent.

PUPIL RESULTS

The Peabody Picture Vocabulary Test was used as a pretest - posttest measure of verbal ability each of the three years. Results by individual pupils were reported in each of the first two evaluation reports. Results for the three years are summarized by year in Table 4.

Table 4 shows group results for each year. Two pupils from the first year's group were included in the second year's results, and three different pupils in the second year's group are included in the third year's group results. The data shows a declining tendency in mean standard scores from year to year for the three groups. It also shows that standard score means drop from pretest to posttest. However, this does not necessarily mean the pupils did not make gains from pretest to posttest. Raw score means did increase each year from pretest to posttest. Form A of the PPVT was used as the pretest - posttest measure the first year and Form B as the posttest measure the last two years. In each group most pupils' ages were such that their scores fell in one age bracket on the form and in a different age bracket on the other form of the test. The difference in mental ages ranged from slight declines to over two years growth from pretest to posttest. Another factor that affected the scores from year to year was, the ages of the pupils involved were higher each year with the oldest in the first group being about the same age as the youngest in the third group.

TABLE 4

PEABODY PICTURE VOCABULARY TEST RESULTS FOR LEARNING DISABILITIES — ELEMENTARY LEVEL I

1966-67

N = 6	November	May
Raw Score Mean	72.7	73.3
Raw Score Median	76	76
Raw Score Range	58-82	57-82
Standard Deviation	9.8	9.8
Standard Score Mean	108.3	104
Standard Score Median	109	104
Standard Score Range	93-126	85-128
Standard Score, Standard Deviation	12.8	14.4

1967-68

N = 8	October	May
Raw Score Mean	67.8	68.1
Raw Score Median	66	67
Raw Score Range	56-78	59-80
Standard Deviation	8.1	7.0
Standard Score Mean	97.4	93.9
Standard Score Median	100	92
Standard Score Range	80-111	80-114
Standard Score, Standard Deviation	11.7	11.3

1968-69

N = 9	November	May
Raw Score Mean	68.6	71.4
Raw Score Median	69	69
Raw Score Range	53-86	58-89
Standard Deviation	9.6	8.8
Standard Score Mean	92.6	93.9
Standard Score Median	96	89
Standard Score Range	70-112	71-110
Standard Score, Standard Deviation	12.5	12.7

In spite of what may at first appear to be losses in verbal ability from pretest to posttest on the PPVT for these three groups, gains were made as evidenced by the group raw score results and the fact that standard score means did not drop as much as they may appear to have dropped when one considers the seven-month time lapse between tests.

The Wide Range Achievement Test was used each year as a measure of basic skills in reading, spelling, and arithmetic. It was believed earlier that these results would provide a measure of academic progress. Results by individual pupils were presented in each of the first two annual evaluations. Results for each group are summarized here in Table 5. Two of the five pupils in the 1966-67 group were also tested in the 1967-68 group. Three different pupils in the second year's group were included in the last year's group.

Group results on the WRAT show mean gains each year on all three subtests. Gains varied each year on each of the three subtests for individual pupils. During the first year, the reading subtest gains varied from a low of -.2 to a high of 1.0; the second year, from a low of .1 to a high of 1.2; and the last year, from a low of 0 to a high of 1.6. Individual gains on the spelling subtest during the first year ranged from a low of -.3 to a high of .5; the second year, the gains ranged from .1 to .7; and the third year, from .1 to 1.2. Individual arithmetic score gains also varied each year. For the first year, arithmetic gain varied from a low of -.2 to a high of .7; during the second year, from a low of .4 to a high of 1.5; and for the third year, a low of 0 to a high of 2.3.

TABLE 5
WIDE RANGE ACHIEVEMENT TEST RESULTS FOR LEARNING DISABILITIES - ELEMENTARY LEVEL I

1966-67

N = 5	November	May
Reading		
G.E. Mean	2.3	2.6
G.E. Median	2.0	2.6
G.E. Range	1.6-3.9	1.5-4.2
Spelling		
G.E. Mean	2.0	2.1
G.E. Median	2.0	2.0
G.E. Range	1.2-3.5	1.2-3.2
Arithmetic		
G.E. Mean	2.2	2.4
G.E. Median	2.1	2.4
G.E. Range	1.8-2.8	1.9-2.8

1967-68

N = 8	October	May
Reading		
G.E. Mean	2.1	2.8
G.E. Median	1.8	2.3
G.E. Range	Kg. 8-3.5	1.6-4.7
Spelling		
G.E. Mean	2.0	2.3
G.E. Median	1.8	2.1
G.E. Range	1.3-3.0	1.5-3.7
Arithmetic		
G.E. Mean	2.1	2.9
G.E. Median	2.0	2.7
G.E. Range	Kg. 5-3.6	2.1-4.2

1968-69

N = 9	November	May
Reading		
G.E. Mean	2.0	2.7
G.E. Median	2.1	2.6
G.E. Range	1.5-2.3	1.5-3.5
Spelling		
G.E. Mean	2.1	2.7
G.E. Median	2.0	2.6
G.E. Range	1.3-2.7	1.5-3.7
Arithmetic		
G.E. Mean	2.5	3.7
G.E. Median	2.6	3.9
G.E. Range	1.2-3.6	2.1-5.2

More significant educationally was the fact that the pretest - posttest time lapse was approximately seven months. Group mean gains on the reading subtest was about seven months with the exception of the first year. Group mean gains on the spelling subtest were not as great the first two years but were about equal to the time lapse between tests the third year. Group gains in mean G.E. on the arithmetic subtest increased each year. The last two years showed gains considerably greater in months on the arithmetic subtest than the time interval between tests.

Each of the last two years, the teacher was asked to rate the growth or progress each pupil had made in the same areas as the subtests on the Wide Range Achievement Test. The frequencies of the ratings for this group for the last two years are given in Table 6.

TABLE 6

FREQUENCIES OF TEACHER RATINGS IN READING, SPELLING, AND ARITHMETIC - LEARNING DISABILITIES, LEVEL I

Please rate the growth or progress you have observed for each pupil.

1967-68

	Frequency of Rating			
	Much	Moderate	Slight	Little or None
1. Growth in:				
a. Reading	6	1	1	0
b. Spelling	4	1	2	1
c. Arithmetic	3	5	0	0

TABLE 6 (Cont'd)

Please rate the growth or progress you have observed for each pupil.

1968-69

	Frequency of Rating			
	Much	Moderate	Slight	Little or None
1. Growth in:				
a. Reading	3	1	3	2
b. Spelling	1	5	0	3
c. Arithmetic	5	2	1	1

In comparing group ratings each year with corresponding subtest results on the WRAT, during 1967-68, reading test results show an indicated seven months growth in reading with seven out of eight pupils receiving moderate to much growth ratings by the teacher. During the past year, the group mean growth on the reading subtest was again seven months, while only four of the nine pupils received moderate to much growth ratings by the teacher.

During the 1967-68 school year, the group spelling subtest results showed an indicated mean gain of three months for the group, while five pupils out of eight were rated as having moderate to much growth in spelling. The past year's spelling subtest results indicated a six month mean gain while six of the nine pupils received moderate to much growth ratings by the teacher.

The arithmetic subtest results for 1967-68 indicated a mean growth for the group of eight months, while all eight pupils received moderate to much growth ratings by the teacher. The past year's arithmetic subtest results showed an indicated mean growth for the group of one year and two months. At the same time, the teacher rated seven of the nine pupils as having made moderate to much growth.

The Goodenough-Harris Drawing Test was utilized the first two years as a measure of intellectual maturity. The Goodenough Draw a Man Test was used the third year. The means of the standard scores for the group for each year are given below.

1966-67

Man		Woman		Self	
Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
77	79	74	72	75	76

1967-68

Man		Woman		Self	
Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
80.4	88.8	73.0	82.8	76.0	88.8

1968-69

Man	
Pretest	Posttest
77.3	86.3

As a group, gains were made from pretest to posttest on all parts except the drawing of a woman during the first year. Even though the first year's results do not look as impressive as the remaining results, gains were made due to the fact that standard score means were about the same after a seven-month time lapse between tests. Substantial increases were made in group mean gains on all three parts of the drawing test the second year and on the Goodenough Draw a Man Test the third year. The Draw a Man Test was used quite frequently as a regular part of the diagnostic testing, and it was felt that it would provide an adequate measure for evaluative purposes. Therefore, it was used the third year instead of the Goodenough-Harris Drawing Test.

Part of the reason for more substantial gains occurring during the last two years may have been due to the type of perceptual training and other classroom activities provided by the teacher and curriculum consultants.

Limitations immanent in testing situations apply to these test results. However, it appears that many pupils did progress at a faster rate than might otherwise be expected based on the test results over the three-year period.

CLASSROOM SUPPORTIVE SERVICES

The second objective for this classroom related to improvement of the pupils' ability to express themselves in non-verbal areas. Consultants in art, music, and physical education were scheduled for regular visits to each of the supplementary classrooms. The consultants assisted the teacher by providing lesson plans or suggestions as well as appropriate equipment, media, and materials.

Art activities for this group included ceramic clay work, cut and torn paper murals, and painting to music. The art consultant conducted a creativity study with this class which will be discussed later in this report.

Music activities for this class were geared to developing a "liking" for music. Major emphasis was placed on improving rhythmical behavior and reinforcement of perceptual training done by the teacher.

Physical education activities for this group centered around skipping, hopping, galloping, walking, running, recognition of body parts, obstacle course work, ball throwing and catching, and safety. One goal of the activities was to bring about better balance and coordination in each pupil.

The only standardized testing of pupils in these areas was done by the physical education consultant. Each year the consultant administered the American Association for Health, Physical Education, and Recreation Youth Fitness Test. The Kraus-Weber Test of Minimum Muscular Fitness was also used and those results will be discussed later. Table 7 shows AAHPER results for each year for those having both pretest and posttest scores. The five in each of the first two years were male and the three the third year were two female and one male.

Gains were made on most subtests; however, the last year's group was so small it would be difficult to interpret gains or losses for the whole class. Various individuals did make considerable gains from pretest to posttest in certain areas.

TABLE 7
AAHPER YOUTH FITNESS TEST RESULTS
LEARNING DISABILITIES - ELEMENTARY LEVEL I

1966-67

Measures N = 5	Fall Test Mean	Fall Test Range	Spring Test Mean	Spring Test Range
Pull-ups (number)	1.8	0 - 6	2.2	0 - 7
Sit-ups (number)	13.4	0 -30	16.4	0 -41
Shuttle Run (seconds)	16.5	18.4-15.0	15.5	17.4-13.8
Standing Broad Jump(inches)	35.5	27 -46	41.0	30 -60
50-Yard Dash (seconds)	13.3	13.8-12.6	10.5	11.4- 9.0
Softball Throw (feet)	34.0	17 -52	43.0	19 -69
600-Yard Run-Walk (min. and sec.)	3:07	3:20-2:51	3:17	3:48-2:37

1967-1968

Measures N = 5	Fall Test Mean	Fall Test Range	Spring Test Mean	Spring Test Range
Pull-ups (number)	1	0 - 3	2	0 - 6
Sit-ups (number)	18.4	8 -33	35.0	9 -93
Shuttle Run (seconds)	11.5	13.9- 9.4	13.7	14.1-12.8
Standing Broad Jump(inches)	34.2	28 -44	45.6	33 -52
50-Yard Dash (seconds)	11.0	12.2- 9.4	9.8	11.8- 9.2
Softball Throw (feet)	41.8	21 -55	43.0	25 -56
600-Yard Run-Walk (min. and sec.)	2:34	2:48-1:50	2:13	2:46-1:48

1968-1969

Measures N = 3	Fall Test Mean	Fall Test Range	Spring Test Mean	Spring Test Range
Sit-ups (number)	16.7	12 -22	14.7	6 -25
Shuttle-Run (seconds)	15.1	15.8-14.3	16.5	17.2-15.5
Standing Broad Jump(inches)	32.7	24 -40	41.7	29 -54
50-Yard Dash (seconds)	11.0	11.6-10.6	10.5	11.7- 9.5
Softball Throw (feet)	34.7	24 -52	34.7	22 -54

OTHER PUPIL INFORMATION

One of the objectives of the classroom was to enable pupils to make successful reentry into regular classroom programs. Each of the three years found some pupils being phased back into regular classrooms either during the year or at the end of the year. During 1966-67, three of the eleven pupils were returned to regular classes; during 1967-68, two of the nine pupils returned to regular classes; and during the past year, four of the nine pupils returned to regular classroom programs.

At the same time, several other pupils had to remain in this classroom for longer periods of time, some up to two years. Others were recommended for other types of special placement which would seem to better meet the needs of those individuals.

COMMENTS ON RESULTS

Most of the data supplied evidence of progress toward classroom objectives. Group test results indicate considerable success in raising achievement levels in the academic areas. Non-test sources of information indicated some progress for most pupils. The teacher and others reported that nearly all pupils made some progress in improving attitudes, work habits, and ability to function as a member of a group.

Even though gains made on test results were impressive for the groups, the fact that during the three years, nine pupils were returned to regular classroom programs provides meaningful evidence of the success of the program. It is evident that placing a small group of pupils with learning disabilities in a classroom with a specially trained teacher with supportive help and a variety of instructional tools is successful in meeting the needs of a substantial number of pupils to the extent that they can return and function properly in a regular classroom program.

LEARNING DISABILITIES - ELEMENTARY LEVEL II

Pupils with learning disabilities, grades four to six, were provided one supplementary classroom. These pupils exhibited unusual behavior and perceptual handicaps that apparently were not primarily caused by emotional disturbances or social maladjustments. Pupils were included if they had indications of neurological pathology, brain injury, hyperactive behavior, and undifferentiated disabilities.

OBJECTIVES

1. To enable pupils to achieve academically at levels appropriate to age, grade, and intelligence.
2. To discover and devise effective teaching techniques and superior instructional materials for pupils with learning disabilities.
3. To aid in the development of visual and motor skills.
4. To improve the pupils' attitudes toward self, school, and others.
5. To enable pupils to improve their ability to express themselves in non-verbal areas.
6. To enable pupils to reenter the regular program in reasonable lengths of time.

METHODS AND PROCEDURES

A structured classroom environment with individualized instruction and an opportunity for self-expression and personal creativity was provided for pupils who experienced specific kinds of difficulties with the learning processes. Academic work was geared to the instructional level of each child. Special work programs were utilized to provide meaning to the tasks the pupil performed. Specialized equipment and materials were used and positive reenforcement for acceptable work and behaviors were maintained so that the pupil had some success experiences.

PUPILS PLACED IN CLASSROOM

Examination of pupil records for the three-year period revealed the following information about the pupils placed in this classroom:

1966-67

Age range at entrance: 9 years to 11 years, 11 months

Race: All Caucasian

Sex: Seven male - four female

1967-68

Age range at entrance: 9 years, 3 months to 12 years, 6 months

Race: All Caucasian

Sex: Eleven male - one female

1968-69

Age range at entrance: 9 years, 9 months to 11 years, 11 months

Race: Eight Caucasian - one Negro

Sex: All male

A maximum enrollment of ten pupils at a time was maintained even though there were fewer than ten much of the time. Eleven different pupils were placed during the first year, twelve different pupils were placed during the second year, and nine different pupils were placed during the last year. Attendance records showed that during the first year, eight pupils were absent only one or two days each. Attendance varied during the second year from a low of eighty-five percent to a high of one hundred percent with a mean attendance of ninety-five percent. The third year found the attendance varying from a low of seventy-three percent to a high of one hundred percent and the mean attendance falling at ninety-one percent.

PUPIL RESULTS

The Peabody Picture Vocabulary Test was utilized as a pretest--posttest measure of verbal ability. Form A was used for both the pretest and the posttest the first year. The last two years, Form A was used as the pretest measure and Form B as the posttest measure. Results by individual pupils were reported in each of the first two annual evaluations. Results for each of the three years are summarized in Table 8.

TABLE 8

PEABODY PICTURE VOCABULARY TEST RESULTS FOR LEARNING DISABILITIES - ELEMENTARY LEVEL II

1966-67

N = 6	November	May
Raw Score Mean	78.5	78.8
Raw Score Median	79	81
Raw Score Range	64-87	71-83
Standard Deviation	7.3	4.8
Standard Score Mean	99.2	94.8
Standard Score Median	97	91.5
Standard Score Range	82-118	85-112
Standard Score, Standard Deviation	12.3	9.2

1967-68

N = 11	October	May
Raw Score Mean	78.1	79.2
Raw Score Median	81	79
Raw Score Range	62-86	70-94
Standard Deviation	7.7	7.1
Standard Score Mean	96.9	93.6
Standard Score Median	98	91
Standard Score Range	69-115	82-111
Standard Score, Standard Deviation	12.6	7.5

1968-69

N = 7	November	May
Raw Score Mean	78.3	80.4
Raw Score Median	83	83
Raw Score Range	61-89	63-93
Standard Deviation	8.9	10.9
Standard Score Mean	97	94.7
Standard Score Median	101	100
Standard Score Range	64-111	76-116
Standard Score, Standard Deviation	13.7	12.9

Group results for each year for those who had both pretest and posttest scores are presented in Table 9. Two of the six pupils in the 1966-67 group were also in the 1967-68 group. Three other pupils in the 1967-68 group were also in the 1968-69 group. The data indicates little variation in standard score means from year to year. There is a slight drop in standard scores from pretest to posttest each year. At the same time, there is a slight increase in raw score means from pretest to posttest for each group. Even though standard score means for the groups dropped slightly from pretest to posttest, this does not mean that gains were not made. Two things must be considered: (1) a seven-month time lapse between tests with group gains in raw score means and (2) slight differences in tables from Form A to Form B with many pupils changing from one age bracket to the next from pretest to posttest. The difference in mental age scores from pretest to posttest ranged from a loss of two years to a gain of nearly two years.

Although a first inspection of the data shown in Table 8 may lead one to believe that, based on this test data, not much was accomplished, a closer examination leads to a conclusion that as a group each year gains were made.

The Wide Range Achievement Test was used each year as a measure of basic skills in reading, spelling, and arithmetic. It was thought earlier that these results would provide a measure of academic progress. Individual results were presented in earlier evaluation reports. Group results are summarized and presented here.

TABLE 9
WIDE RANGE ACHIEVEMENT TEST RESULTS FOR LEARNING DISABILITIES - ELEMENTARY LEVEL II

1966-67

N = 4	November	May
Reading		
G.E. Mean	2.3	2.5
G.E. Median	2.4	2.7
G.E. Range	1.4-2.9	1.6-2.9
Spelling		
G.E. Mean	1.9	2.4
G.E. Median	1.9	2.5
G.E. Range	1.3-2.5	1.4-3.0
Arithmetic		
G.E. Mean	2.7	3.1
G.E. Median	2.9	3.2
G.E. Range	2.1-3.2	2.1-3.9

1967-68

N = 11	October	May
Reading		
G.E. Mean	2.7	3.2
G.E. Median	2.0	2.5
G.E. Range	Kg.8-6.2	1.2-7.5
Spelling		
G.E. Mean	2.2	2.6
G.E. Median	2.0	2.6
G.E. Range	1.2-3.7	1.2-4.0
Arithmetic		
G.E. Mean	2.8	3.3
G.E. Median	2.9	3.2
G.E. Range	2.1-3.6	2.2-4.5

1968-69

N = 7	November	May
Reading		
G.E. Mean	2.0	3.0
G.E. Median	2.2	3.5
G.E. Range	Kg.6-4.1	1.5-4.4
Spelling		
G.E. Mean	1.9	2.7
G.E. Median	2.2	2.7
G.E. Range	1.2-2.7	1.7-3.7
Arithmetic		
G.E. Mean	2.8	4.3
G.E. Median	2.6	4.4
G.E. Range	2.1-3.6	2.9-4.9

Inspection of Table 9 shows group mean and median gains from pretest to posttest each year on all three subtests. Group mean gains varied each year on all subtests. Group mean gains on the reading subtest increased from a two-month gain the first year to a five-month gain the second year to a full year gain the third year from pretest to posttest. Spelling mean gains went from a five-month gain the first year to a four-month gain the second year to an eight-month mean gain the last year. Arithmetic subtest results show mean gains varying from a four-month growth the first year to a five-month growth the second year to a growth of one year and five months the third year. Educationally, more significance can be attributed to the fact that the gains made were over a time lapse period of about seven months and for these pupils with learning difficulties, the gains were probably much greater than they might have been if the pupils had not received this special placement.

During the last two years, the teacher was asked to rate the growth or progress observed in each pupil in the same areas as the WRAT subtests. Frequencies of these ratings are presented in the following table.

TABLE 10

FREQUENCIES OF TEACHER RATINGS IN READING, SPELLING, AND ARITHMETIC - LEARNING DISABILITIES, LEVEL II

Please rate the growth or progress you have observed for each pupil

1967-68

	Frequency of Rating			
	Much	Moderate	Slight	Little or None
1. Growth in:				
a. Reading	5	4	2	0
b. Spelling	3	6	2	0
c. Arithmetic	5	3	3	0

Please rate the growth or progress you have observed for each pupil

1968-69

	Frequency of Rating			
	Much	Moderate	Slight	Little or None
1. Growth in:				
a. Reading	5	4	0	0
b. Spelling	1	6	2	0
c. Arithmetic	8	1	0	0

In comparing teacher ratings and group mean gains on each subtest of the WRAT, one finds that in 1967-68 in reading the teacher rated nine of the eleven pupils as making moderate to much growth, while the mean gain for the group on the reading subtest was five months. In spelling the teacher rated nine of eleven pupils as making moderate to much growth,while the group mean gain was four months from pretest to posttest. In the arithmetic area, the teacher rated eight of the eleven pupils as making moderate to much growth, and the group mean gain on the arithmetic subtest was five months.

During the past year, the teacher rated all pupils as making moderate to much growth in the reading area, while the mean gains on the reading subtest were one year for the group. In the spelling area, seven of nine pupils were rated by the teacher as making moderate to much growth, while the group mean gain on the spelling subtest was eight months. The teacher rated all pupils as making moderate to much growth in arithmetic, while group mean gains on the arithmetic subtest were one year and five months.

The Goodenough-Harris Drawing Test was used during the first two years as a measure of intellectual maturity. The Goodenough Draw a Man Test was utilized the third year since this is used so frequently as a regular diagnostic tool. The means of the standard scores for this class for each year are given below:

1966-67

Man		Woman		Self	
Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
85	83	85	81	84	85

1967-68

Man		Woman		Self	
Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
83.5	91.5	78.0	84.9	83.4	86.1

1968-69

Man	
Pretest	Posttest
81.7	84.3

Group mean standard score gains were made in all areas except the drawing of a man and woman the first year. Even so, the group maintained nearly the same standard score mean with approximately seven months between tests; therefore, some gains were still made. Noticeable mean gains were made the last two years.

Limitations inherent in all testing situations apply to all of these test results. Based on these data, it is evident that pupils, individually and as a group, did make significant progress as a result of participating in this special classroom program.

CLASSROOM SUPPORTIVE SERVICES

One of the objectives for this classroom was to improve the pupils' abilities to express themselves in non-verbal areas. The consultants in art, music, and physical education visited the classroom on a regularly scheduled basis. They assisted the teacher by providing lesson plans or suggestions in each area and supplied the appropriate equipment, media, and materials to carry the suggestions out.

The art consultant found that many pupils in this group were physically rigid; hence, she suggested "exercises" to try to gain more freedom of movement in all of their art expressions. An example would be "quick" drawings and painting to music. The consultant also conducted a creativity study with this group which will be discussed later in the report.

Music activities for the group included those for improving rhythmical behavior and preparing pupils to return to "regular" music class activities. Basic music concepts were presented such as identification of instruments, notes and time values (used in arithmetic work), and musical symbols.

Activities in the physical education program were skipping, hopping, walking, running, recognition of body parts, obstacle course work, ball throwing and catching, and safety. The objective of these activities was to improve and further develop motor skills and coordination.

Measurement of the success of the physical education program was done with two tests. Each year, the American Association for Health, Physical Education, and Recreation Youth Fitness Test was administered by the physical education consultant. In addition, the Kraus-Weber Test of Minimum Muscular Fitness was administered; however, those results will be discussed later in this report. The following table shows AAHPER results for this classroom for each of the three years.

Gains were made as a group on most subtests each year. Only the shuttle-run the first two years indicated a loss in performance. Although mean gains were made, most of the performances were in the low range when compared to percentile rankings based on national norms. Three parts of the test for these pupils did show up in the average or low-average range, namely, pull-ups, 600-yard run-walk, and sit-ups. These results are, however, extremely limited due to the small numbers in the pretest--posttest groups.

TABLE 11
AAHPER YOUTH FITNESS TEST RESULTS
LEARNING DISABILITIES - ELEMENTARY LEVEL II

1966-67

Measures N = 4	Fall Test Mean	Fall Test Range	Spring Test Mean	Spring Test Range
Pull-ups (number)	3.0	2 - 4	3.8	1 - 6
Sit-ups (number)	27.5	18 -47	39.0	20 -76
Shuttle Run (seconds)	13.5	15.1-12.6	14.0	16.6-12.2
Standing Broad Jump(inches)	53.0	48 -60	56.8	53 -64
50-Yard Dash (seconds)	10.2	11.3- 8.4	8.0	9.9- 7.5
Softball Throw (feet)	81.8	60 -110	87.5	55 -128
600-Yard Run-walk (min. and sec.)	2:49	3:00-2:36	2:37	2:59-2:29

1967-68

Measures N = 5	Fall Test Mean	Fall Test Range	Spring Test Mean	Spring Test Range
Pull-ups (number)	1	0 - 3	2.4	0 - 7
Sit-ups (number)	16.2	0 -29	21	9 -35
Shuttle Run (seconds)	13.4	15.6-11.5	13.9	16.8-11.3
Standing Broad Jump(inches)	40.4	23 -54	50	34 -64
50-Yard Dash (seconds)	10.4	13.0- 8.0	9.2	12.0- 8.2
Softball Throw (feet)	47.8	21 -70	56	19 -76
600-Yard Run-Walk (min. and sec.)	2:00	2:35-1:32	1:41	2:35-1:25

1968-69

Measures N = 3	Fall Test Mean	Fall Test Range	Spring Test Mean	Spring Test Range
Sit-ups (number)	14	8 -20	25.3	10 -51
Shuttle-Run (seconds)	13.6	14.8-12.5	12.8	13.7-11.5
Standing Broad Jump(inches)	37.6	33 -45	45	37 -54
50-Yard Dash (seconds)	9.9	10 -9.7	9.5	10.4- 8.4
Softball Throw (feet)	54	42 -65	56	40 -73

OTHER PUPIL INFORMATION

A major objective of the supplementary classroom program was to enable pupils to successfully reenter the regular classroom program. Some pupils were able each of the three years to be phased back to the regular classroom from these groups. During 1966-67, four pupils were returned to regular classes either during the year or at the end of the year. The second and third years found five pupils each year returning to regular classes. Some pupils had to remain in the special class more than one year, while others were recommended for other kinds of special placement.

COMMENTS ON RESULTS

Nearly all the data indicates progress toward the classroom objectives. Certain individual and some group test results are indicative of much progress in raising achievement levels of the pupils. Non-test sources of data, such as teacher reports and consultant comments, show that nearly all pupils were able to improve their attitudes, work habits, and ability to function as members of a group.

Test results were increasingly impressive over the three-year period in terms of gains in group mean scores. This is overshadowed by the fact that out of thirty-three pupils placed over the three-year period, forty-two percent, nearly half, were able to return to the regular classroom.

It is evident from these data that placing a small group of pupils with certain learning difficulties in a special classroom with a specially trained teacher was an effective way of overcoming some problems with the learning process and returning them to the regular classroom situation.

LEARNING DISABILITIES - JUNIOR HIGH LEVEL

One supplementary classroom was provided for junior high age pupils with learning disabilities. Pupils placed in this classroom had unusual behavioral and perceptual handicaps which were not primarily caused by emotional disturbances or social maladjustments. Pupils were included if they had indications of impairments such as aphasia, neurological pathology, brain injury, hyperactive behavior, and undifferentiated disabilities.

OBJECTIVES

1. To enable pupils to achieve academically at levels appropriate to age, grade, and intelligence.
2. To improve the pupils' abilities to express themselves in non-verbal areas.
3. To discover and devise effective teaching techniques and superior instructional materials for pupils with learning disabilities.
4. To improve attitudes toward self, others, and school
5. To improve personal and social adjustments so that satisfactory contacts with environment can be made and reentry into regular classrooms can be effected.

METHODS AND PROCEDURES

The junior high school setting provided a different approach in working with pupils who have certain kinds of learning difficulties. The instructor functioned as a resource person with the room space divided and utilized for different teaching and learning activities. Pupils were scheduled in a flexible fashion; that is, they were in and out of the room during various regular school periods. As much time as possible, within the limits of pupil capabilities, was scheduled for each pupil to attend regular classes. The remaining time was used in the special classroom for individual and/or small group work in academic areas where the pupils were most deficient.

PUPILS PLACED IN CLASSROOM

Pupil records revealed the following information about the pupils placed in this classroom for each of the three years of the project operation:

1966-67

Age range at entrance: 12 years, 1 month to 14 years, 7 months
Race: All Caucasian
Sex: Six male - five female

1967-68

Age range at entrance: 12 years, 8 months to 14 years, 11 months
Race: All Caucasian
Sex: Six male - six female

1968-69

Age range at entrance: 11 years, 1 month to 13 years, 11 months
Race: All Caucasian
Sex: Nine male - four female

Attendance records showed that in the first year's group, the days present varied from a low of seventy percent to a high of one hundred percent. During the second year, the attendance rate varied from a low of eighty-one percent to a high of one hundred percent. The last year's attendance rate varied from a low of seventy-three percent to a high of ninety-eight percent. The median attendance for the first year was reported at approximately ninety percent while, the mean attendance for the last two years was ninety-three percent and ninety percent respectively.

PUPIL RESULTS

The Peabody Picture Vocabulary Test was used as a measure of verbal ability each year. Form A was used as both a pretest and posttest measure the first year. For the last two years, Form B was used as the pretest and Form A as the posttest. Individual pupil results were reported in each of the first two evaluation reports. Group results for each year are presented in the following table.

TABLE 12
PEABODY PICTURE VOCABULARY TEST RESULTS FOR LEARNING DISABILITIES - JUNIOR HIGH SCHOOL

1966-67

N = 4	November	May
Raw Score Mean	93.5	95.3
Raw Score Median	91.5	93.5
Raw Score Range	78-113	80-114
Standard Deviation	13.6	13.6
Standard Score Mean	100	100
Standard Score Median	95	117
Standard Score Range	81-129	83-119
Standard Score, Standard Deviation	19.6	15.3

1967-68

N = 12	October	May
Raw Score Mean	88.9	90.9
Raw Score Median	87	91
Raw Score Range	75-113	73-108
Standard Deviation	10.6	9.7
Standard Score Mean	95.0	95.8
Standard Score Median	93	97
Standard Score Range	80-125	78-118
Standard Score, Standard Deviation	12.0	10.0

1968-69

N = 12	November	May
Raw Score Mean	92.6	97.2
Raw Score Median	88	97.5
Raw Score Range	73-138	77-138
Standard Deviation	15.6	16.3
Standard Score Mean	99	99.1
Standard Score Median	95.5	98.5
Standard Score Range	75-162	80-153
Standard Score, Standard Deviation	20.5	19.2

Table 12 shows group results for those who had both pretest and posttest scores each of the three years. Three pupils in the first year's class, none of whom had complete test results, were also in the classroom the second year. Nine of the twelve in the 1967-68 group are also included in the last year's group. Group mean standard scores changed very little if any from pretest to posttest each year and had only slight variation from one group to another. The nine pupils who were in the last two groups raised their mean standard scores of 92.7 on the pretest in 1967-68 to 94.2 on the posttest in 1968-69. Mental age scores ranged from a low of nine years, four months to a high of eighteen years plus.

Gains were made each year as indicated by differences in raw score means from pretest to posttest. The fact that standard score means for the groups remained stable from pretest to posttest indicates that as a group they were making approximately the normal expected growth of about seven months between tests.

The Wide Range Achievement Test was used each year as a measure of basic skills in reading, spelling, and arithmetic. Consideration was given earlier to these providing a measure of academic progress. Results of individual pupils were presented in each previous annual evaluation. Group results were summarized for presentation here.

TABLE 13
WIDE RANGE ACHIEVEMENT TEST RESULTS FOR LEARNING DISABILITIES - JUNIOR HIGH LEVEL

1966-67

N = 3	November	May
Reading		
G.E. Mean	7.6	9.2
G.E. Median	8.3	7.1
G.E. Range	5.4-9.1	6.9-13.5
Spelling		
G.E. Mean	7.5	7.5
G.E. Median	6.5	6.1
G.E. Range	4.9-11.2	4.9-11.6
Arithmetic		
G.E. Mean	6.9	7.9
G.E. Median	5.7	5.3
G.E. Range	4.9-10.1	5.3-13.3

1967-68

N = 11	October	May
Reading		
G.E. Mean	5.6	6.3
G.E. Median	5.0	6.2
G.E. Range	1.7-12.8	1.3-14.1
Spelling		
G.E. Mean	4.7	5.2
G.E. Median	4.3	4.9
G.E. Range	2.2-11.6	2.2-10.8
Arithmetic		
G.E. Mean	4.3	4.9
G.E. Median	3.4	4.4
G.E. Range	2.9-7.7	2.9-9.0

1968-69

N = 12	November	May
Reading		
G.E. Mean	5.6	6.7
G.E. Median	5.8	7.5
G.E. Range	2.0-11.6	2.4-13.0
Spelling		
G.E. Mean	4.7	5.3
G.E. Median	4.8	5.1
G.E. Range	2.6-7.6	2.2-9.6
Arithmetic		
G.E. Mean	4.5	5.3
G.E. Median	4.7	5.5
G.E. Range	2.3-6.1	3.4-7.7

Table 13 shows group mean gains from pretest to posttest for all three subtests each year except spelling the first year. Since the group the first year was so small for those having results on both tests, little can be said about group performance that year. The amount of mean growth in grade equivalent for the groups during both of the last two years was about equal to the time lapse between tests except the growth in the reading subtest the third year. Even though the group was still two to three years behind what is normally expected of this age group, the fact that they did not, as a group, fall farther behind shows some progress.

The teacher was asked each of the last two years to rate the growth she had observed in the same academic areas as covered by the WRAT subtests. Frequencies of those ratings for each year are presented in the following table.

TABLE 14

FREQUENCIES OF TEACHER RATINGS IN READING, SPELLING AND ARITHMETIC - LEARNING DISABILITIES, JUNIOR HIGH

Please rate the growth or progress you have observed for each pupil

1967-68

	Frequency of Rating			
	Much	Moderate	Slight	Little or None
1. Growth in:				
a. Reading	0	11	0	0
b. Spelling	0	9	2	0
c. Arithmetic	1	7	2	1

TABLE 14 (Cont'd)

Please rate the growth or progress you have observed for each pupil

1968-69

	Frequency of Rating Much	Moderate	Slight	Little or None
1. Growth in:				
a. Reading	1	12	0	0
b. Spelling	0	8	5	0
c. Arithmetic	2	10	1	0

A comparison of teacher ratings and group mean gains on each subtest of the WRAT shows that all or nearly all received moderate to much growth ratings by the teacher, while the group was making six- to eight-month gains in grade equivalent from pretest to posttest. One noticeable exception was on the spelling ratings the last year. Only eight of the thirteen rated received as high as a moderate growth rating while the group made six months growth in mean grade equivalent in approximately seven months time.

The Goodenough-Harris Drawing Test was utilized the first two years as a measure of intellectual maturity. The Goodenough Draw a Man Test was used the third year. The means of the standard scores for this group for each year are given below:

1966-67

Man		Woman		Self	
Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
84	71	81	73	82	75

1967-68

Man		Woman		Self	
Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
78.2	81.8	70.6	78.5	73.8	78.8

1968-69

Man	
Pretest	Posttest
61.1	75.2

Group mean gains were made from pretest to posttest each of the last two years. Only three pupils were included in the first year's results; therefore, little can be concluded regarding the differences in mean pretest and posttest scores for that group.

The drop in the pretest standard score for the third year may be related to the age of the pupils in this group and the fact that nine of the twelve pupils were in the previous year's group and may not have felt too secure having to stay in the group and perform the drawing task asked for on the test.

Limitations that apply to all testing situations are also applicable for all these test results. These tests are not sensitive to small changes over short periods of time with atypical children. Even so, the test data do indicate that pupils, both individually and as a group, did make progress based on pretest and posttest measures. It is evident that the pupils did benefit from participation in this special classroom.

CLASSROOM SUPPORTIVE SERVICES

During the first two years of operation under this project, the special consultants in art, music, and physical education worked on a limited basis with some pupils in the junior high level learning disabilities class. The problem of having pupils scheduled in other regular classrooms at various times during the day made it impossible for the consultants to be scheduled at a time when all pupils were in the room. During the third year the consultants were only on call to help the teacher with particular problems in the consultant's specific areas. Since the consultants had very few pupil contacts over the three-year period, they did not attempt to evaluate the progress of the classes as a group each year.

The only testing done by the consultants was performed by the physical education consultant the last two years. The measure selected was the American Association for Health, Physical Education, and Recreation Youth Fitness Test. Results for those having both the pretest and posttest each year is presented in Table 15.

The small number of pupils having both pretest and posttest results limits the interpretation of results for the whole group. Most of the results were for boys while one-third to one-half of each group were girls. However, for those taking both tests each year, gains were made from pretest to posttest in all areas except pull-ups during 1967-68. Results for the boys for this age group compared to national norms were average in performance on all sections except the softball throw where they were in the low average-range and the 600-yard run-walk where they performed in the high range.

TABLE 15
AAHPER YOUTH FITNESS TEST RESULTS
LEARNING DISABILITIES - JUNIOR HIGH LEVEL

1967-68

Measures N = 4	Fall Test Mean	Fall Test Range	Spring Test Mean	Spring Test Range
Pull-ups (number)	2	0 - 5	2	0 - 5
Sit-ups (number)	42.8	40 -45	72.8	60 -90
Shuttle Run (seconds)	10.7	11.6- 9.9	10.1	10.7- 9.2
Standing Broad Jump(inches)	57.3	40 -72	62.5	47 -80
50-Yard Dash (seconds)	8.1	8.8- 7.5	7.8	8.1- 7.2
Softball Throw (feet)	100.8	80 -140	106.5	80 -152
600-Yard Run-Walk (min. and sec.)	2:21	2:40-2:04	2:09	2:19-2:01

1968-69

Measures N = 6	Fall Test Mean	Fall Test Range	Spring Test Mean	Spring Test Range
Pull-ups (number)	4	0 - 9	4.2	0 - 8
Sit-ups (number)	59	31 -101	80.2	53 -110
Shuttle Run (seconds)	10.6	11.7- 9.9	10.3	11.1- 9.5
Standing Broad Jump(inches)	64.2	46 -79	68.8	49 -80
50-Yard Dash (seconds)	8	8.6- 7.4	7.7	8.3- 7.1
Softball Throw (feet)	104.8	78 -140	124.5	80 -160
600-Yard Run-Walk (min. and sec.)	2:06	2:12-2:03	1:42	2:11-1:16

OTHER PUPIL INFORMATION

One of the goals of the supplementary classroom program was to enable pupils to reenter the regular classroom program as quickly as feasible. During the three years, fifteen pupils were returned to regular classes and two others were placed in other special education programs. Of the fifteen, five were returned the first year, three the second year, and seven the third year. Some of these were returned to regular classes during the year. However, most were changed at the end of a school year so that they would resume regular placement at the beginning of the following school year. Nine of these fifteen pupils were in this special class more than one year but less than two full years.

COMMENTS ON RESULTS

Most of the test data for the three-year period indicates progress, both individual and group progress. Achievement in academic areas is still approximately two years below expectations for this age group. However, indications were that gains were made so that the pupils were not as far behind when they finished the program as they were when they entered the program.

Comments on progress by the teacher and others also indicate growth in pupils in their ability to function as members of a group. The additional fact that fifteen pupils were returned full-time to regular classroom activities provides further evidence of the success and effectiveness of this program.

Apparently the provision of a special classroom with a specially trained teacher, and provision of as many regular classes in which pupils who can function or are allowed to function, is an effective way of handling pupils in this age group who have learning difficulties.

HEARING HANDICAPPED, PRE-SCHOOL

A supplementary classroom was provided for children of pre-school age with hearing difficulties. Two groups of pupils were served on a half-day schedule. One group consisted primarily of pupils three and four years of age, and the other group was primarily kindergarten or five years of age. These pupils had hearing impairments severe enough that communication and language skills could not be learned adequately without specialized equipment and instructional materials.

OBJECTIVES

1. To enable pupils with hearing handicaps to observe, attend, imitate, concentrate, remember, and reason through the use of the senses.
2. To help each pupil make use of any residual hearing he may have in discriminating sounds.
3. To improve the skill of lipreading.
4. To improve the ability of each pupil to communicate with language and to respond to the communication of others.
5. To help develop speech and vocabulary.
6. To improve personal and social adjustment so that pupils are able to function satisfactorily in group learning and other sound situations.
7. To discover and devise effective techniques and superior instructional materials for pupils with hearing handicaps.

METHODS AND PROCEDURES

Group activities in the play kitchen with dress up imitation of adults allows the pre-school hearing impaired child to attain a sense of security by identifying with adults through background and experience related materials.

Language development is a primary concern with these children. All class activities were centered on building communicative skills. An amplification system and hearing aids for all the children were essential. Parents became actively involved by working with the school and the teacher in order to carry on in the home the development of speech and language skills. Parents were actively involved and participated in class activities so that they became better acquainted with the methods and goals of the program.

PUPILS PLACED IN CLASSROOM

Pupil records, maintained by the teacher and others, revealed the following information about the pupils placed in this classroom.

1966-67

Age range at entrance: 3 years, 9 months to 6 years, 9 months

Race: Eight Caucasian - one Negro

Sex: Seven male - two female

1967-68

Age range at entrance: 3 years, 0 months to 6 years, 1 month

Race: Ten Caucasian - two Negro - two Spanish-American

Sex: Six male - eight female

1968-69

Age range at entrance: 3 years, 0 months to 4 years, 8 months

Race: Twelve Caucasian - three Negro - one Spanish-American

Sex: Eight male - eight female

A maximum of eight pupils per group was maintained each year with fewer than eight pupils assigned most of the time. Pupils were sometimes changed from the morning to the afternoon group as they progressed or their age was such that more socialization was needed with older pupils. Attendance records showed individual pupil attendance varying from a low of ninety percent to a high of ninety-nine percent during the first year. During the second year, pupil attendance varied from a low of seventy-four percent to a high of one hundred percent with a mean attendance of ninety-one percent. In 1968-69, attendance figures show a low of thirty-eight percent and a high of one hundred percent. The mean attendance during the last year was ninety-two percent.

PUPIL RESULTS

Few standardized tests are available for use with pupils in this age range who also have a hearing handicap. The Hiskey - Nebraska Test of Learning Aptitude was administered each year. It did not appear to be advantageous to use this test as a pretest--posttest measure each year; therefore, it was administered only in November each year. Although results for fifteen pupils were available this past year, it may be more meaningful to look at those pupils for whom scores were available who were also tested the previous year.

TABLE 16
RESULTS OF THE HISKEY - NEBRASKA LEARNING APTITUDE TEST - HEARING HANDICAPPED, PRE-SCHOOL

1967-68

N = 11

	Learning Age
Mean	4-9
Standard Deviation	1
Range	3-5 to 7-0
Median	4-6

1968-69

N = 11

	Learning Age
Mean	6-5
Standard Deviation	1-5
Range	4-3 to 8-8
Median	6-3

Eleven pupils who were in the pre-school group in 1967-68 were also in the hearing handicapped program during the past year. Six of these were still in the Title III pre-school classroom, four were in a Title VI classroom, and one was in the Title III primary level classroom. The mean chronological age for the pupils in 1967-68 was four years and four months. The mean chronological age at the time of testing during 1968-69 was five years and five months. The mean learning age for the group in 1967-68 was five months above the mean chronological age at the time of testing. During 1968-69, the mean learning age at the time of testing was one year above the mean chronological age for the same group. Based on these test results, it is evident that growth in intellectual ability did increase among those pupils tested.

Individual subtest scores varied greatly among various pupils in the group. Two pupils were randomly selected from the eleven pupils to show individual changes in learning age medians and subtest ages.

Pupil number one in Figure 6 had a chronological age of three years and two months when tested in 1967-68 and a chronological age of four years and four months when tested in 1968-69. The change in median learning age from one test to the other was twenty-one months while the chronological age change was fourteen months. Pupil number two had a chronological age of five years and six months when first tested and six years and eight months at the second testing. The change in median learning age between tests for pupil number two was twenty-seven months while the change in chronological age was fourteen months.

FIGURE 6

MEDIAN LEARNING AGE AND SUBTEST SCORES
FOR SELECTED PUPILS ON NEBRASKA TEST OF LEARNING APTITUDE

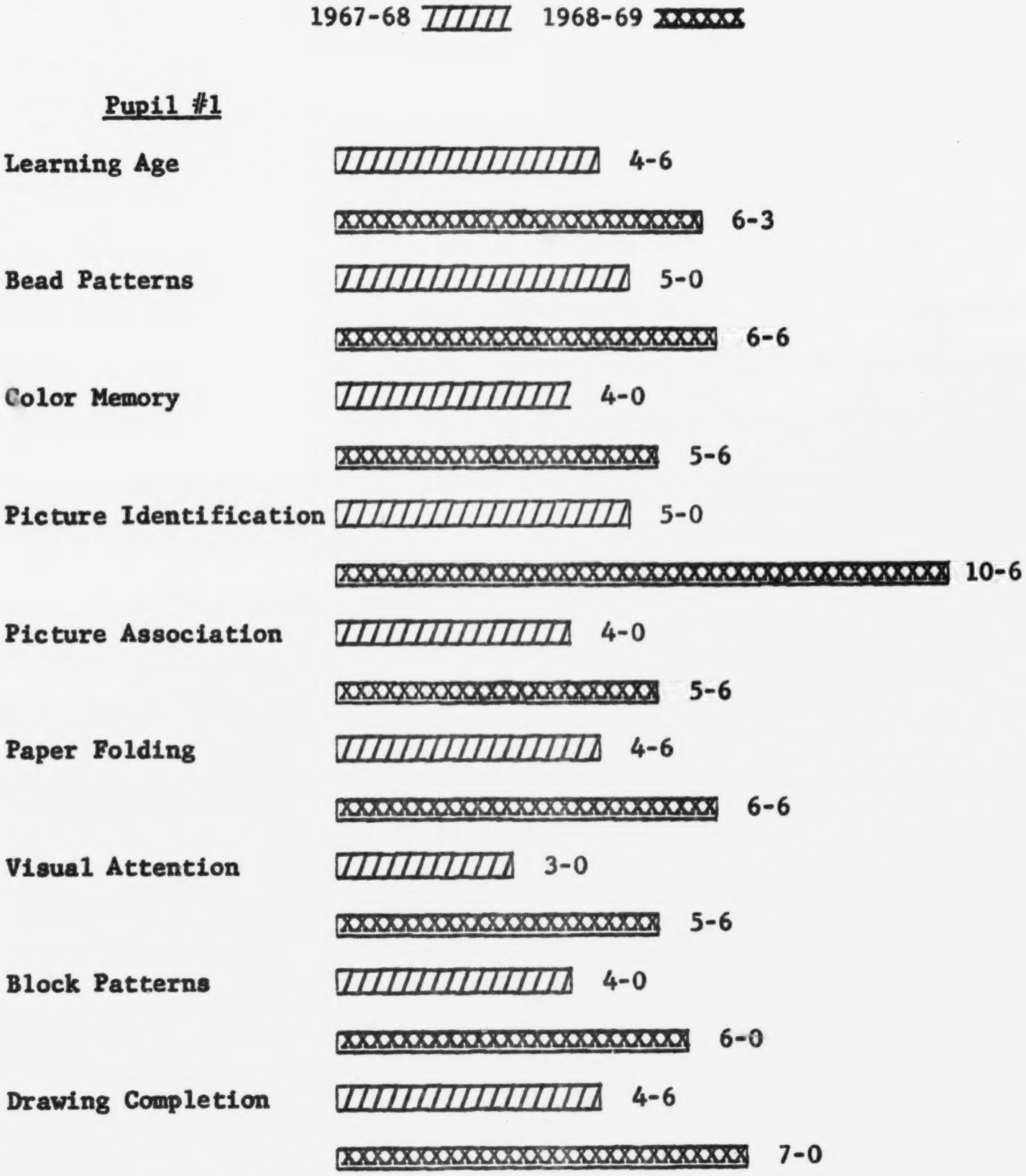
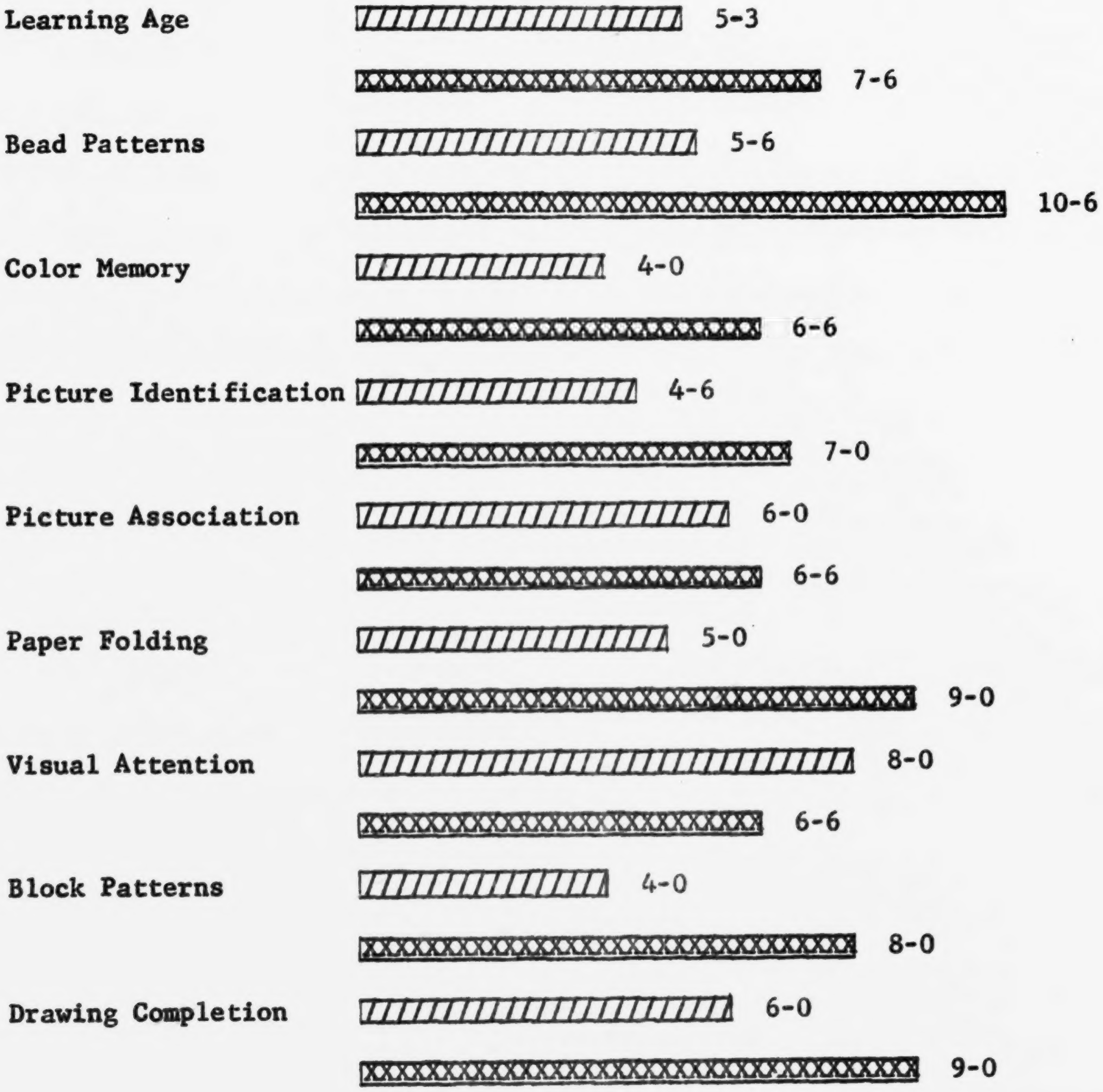


FIGURE 6 (Cont'd)

Pupil #2



One non-test source of data was a rating scale of curriculum items. This scale was developed during the first year of operation and revised the second year. A copy of the rating scale and accompanying guide appeared in the second annual evaluation report. The teacher was asked to rate each child on the items each November and May (except the first year the first rating was in January) so that it would serve as a pretest - posttest measure each year. Mean scores of all ratings given each year for those who were rated twice are presented in the following table.

TABLE 17

MEAN RATING SCORES OF PRE-SCHOOL HEARING HANDICAPPED PUPILS FOR THREE YEARS

Year	Number of Pupils	Prerating Mean	Postrating Mean
1966-67	4	2.4	3.2
1967-68	11	2.1	2.7
1968-69	13	1.9	2.4

The rating scale used contained items listed in eighteen subheadings under the six major areas of: (1) sense training, (2) socialization, (3) responsibility, (4) basic learning skills, (5) language development through speech elements, and (6) language development through concepts. The above mean rating scores were computed from the mean ratings given on each of the six major areas on the rating scale. A five-point rating scale was used with a rating of one being the lowest and five the highest. The intent of the design of the rating scale was to include items contained in the curriculum from the age three level to the age eight level. With such a wide range of items, the younger children were not expected to rate high on the total scale.

The mean ratings each year for these groups were higher on the postrating than on the prerating by slightly over one-half of a full rating point. The postrating each year was in or near the average rating level for the group as a whole.

CLASSROOM SUPPORTIVE SERVICES

The curriculum consultants in art, music, and physical education made regular visits to the classroom to assist the teacher in those areas. A multi-media approach was used by the art consultant to enable the pupils to experiment and develop various art skills. Suggested music activities included music for enjoyment, rhythms, and vibrations. Attempts were made to help develop residual hearing with high volume music as the medium. The physical education consultant suggested a planned daily program which included a brief warm-up period and a short period of gross motor activities. Almost all games presented to the pupils required them to crawl, walk, gallop, skip, jump, or run.

A modified version of the AAHPER Youth Fitness Test was used as a measure of physical ability with this group. The physical education consultant served directly only the morning group; therefore, few scores were available on a pretest - posttest basis. The following table does summarize the results that were available each year.

TABLE 18

AAHPER YOUTH FITNESS TEST RESULTS
HEARING HANDICAPPED PRE-SCHOOL

1966-67

Measures N = 3	Fall Test Mean	Fall Test Range	Spring Test Mean	Spring Test Range
Sit-ups (number)	1.3	0 - 4	3	1 - 4
Standing Broad Jump(inches)	21	14 -29	27	25 -30
Shuttle Run (seconds)	15.9	18.6-14.2	14.6	16.9-13.0
25-Yard Dash (seconds)	10.4	11.9- 8.6	9.9	11.4- 8.5

1967-68

Measures N = 2	Fall Test Mean	Fall Test Range	Spring Test Mean	Spring Test Range
Sit-ups (number)	1.5	1 - 2	0.5	0 - 1
Standing Broad Jump(inches)	12	11 -13	20.5	18 -23
Shuttle Run (seconds)	19.3	21.0-17.5	16.4	16.5-16.2

1968-69

Measures N = 5	Fall Test Mean	Fall Test Range	Spring Test Mean	Spring Test Range
Sit-ups (number)	2.8	0 -14	6.4	4 -10
Standing Broad Jump(inches)	24.4	18 -30	33.4	27 -42
Shuttle Run (seconds)	23.9	27.8-19.3	18.4	20.4-16.2
25-Yard Dash (seconds)	9.1	11.6- 7.7	7.8	9.3- 6.5

No norms were available for this age group or for modified subtests. The results in Table 18 do reflect for the few pupils involved that gains were made each year in most activities. Some problems in communicating with the pupils may have influenced the results.

The only other testing done with this group was the Kraus-Weber Minimal Muscular Fitness Test. Results on this test are discussed later in this report.

OTHER PUPIL INFORMATION

End of the year staffing reports revealed that of the sixteen pupils placed in this classroom, seven were recommended to remain in the pre-school classroom for the next school year, seven were recommended to move into the kindergarten level class, one was recommended to drop the program because of poor attendance, and one moved out of the state.

COMMENTS ON RESULTS

The limited test data presented make it difficult to draw many conclusions. Comments from the teacher, consultants, and parents regarding the progress made by individual pupils along with other non-test sources of data indicate that some progress was made by all pupils. It is evident for those having pretest and posttest results on the Nebraska Test of Learning Aptitude that definite growth was indicated in certain subtest areas, thus, influencing the gains made in median and mean learning age by the group. The type of activities engaged in by the pupils in developing speech and language competencies would probably influence some subtest results more than others.

Some limitations are also apparent for these test results. A few of these pupils were below the age group used to establish norms for the test. Some of the pupils may have had more residual hearing than others. The length of time necessary to administer the test may have influenced results for those who fatigue easily.

The rating scale developed to attempt assessment of progress in the curriculum shows some indications of being fairly valid and reliable in terms of evaluating progress in class activities. It appears to be a more useful item for the teacher than as an evaluative device or instrument. One disadvantage of its usage is the time necessary to cover all the items with each pupil on an individual basis. Even with its shortcomings the rating scale does give a measure of group and individual accomplishment regarding curriculum items.

Based on these results and opinions of those who have worked in this classroom program, it is apparent that an enthusiastic, specially trained teacher working with hearing impaired children and their parents can develop at a fairly rapid rate those skills necessary in order for the child to proceed in the learning processes as nearly normal as possible. For some pupils, residual hearing can be discovered and utilized. Pre-school activities are necessary for pupils with this type of handicap. A public school setting does not apparently deter progress and development of skills but enhances socialization and association with normal hearing children.

HEARING HANDICAPPED - PRIMARY LEVEL

One supplementary classroom was provided for pupils with hearing difficulties of the primary grade level, ages six through nine years. These pupils had hearing impairments severe enough that communication and language skills could not be learned adequately without specialized equipment and instructional materials.

OBJECTIVES

1. To enable pupils with hearing handicaps to observe, attend, imitate, concentrate, remember, and reason through the use of the senses.
2. To help each pupil make use of any residual hearing he may have in discriminating sounds.
3. To improve the skill of lipreading.
4. To improve the ability of each pupil to communicate with language and to respond to the communication of others.
5. To help develop speech and vocabulary.
6. To improve personal and social adjustment so that pupils are able to function satisfactorily in group learning and other situations.
7. To discover and devise effective techniques and superior instructional materials for pupils with hearing handicaps.

METHODS AND PROCEDURES

The primary level hearing handicapped classroom continues the language development and achievement attained in the pre-school and kindergarten classrooms. This does not exclude a pupil from entering the program at the primary level who has not had the previous experience. Much of the curriculum for this group is the same as that in a regular classroom. The continued emphasis and concentration on language development and communicative skills is essential to prepare the pupils for eventual regular program work.

PUPILS PLACED IN CLASSROOM

Information about the pupils placed in this classroom was gathered from records maintained by the teacher and others. That information is summarized as follows:

1966-67

Age range at entrance: 6 years, 4 months to 7 years, 10 months

Race: All Caucasian

Sex: Seven males - two females

1967-68

Age range at entrance: 6 years, 3 months to 8 years, 7 months

Race: All Caucasian

Sex: Five males - one female

1968-69

Age range at entrance: 6 years, 6 months to 8 years, 4 months

Race: All Caucasian

Sex: Two males - five females

A maximum enrollment of seven pupils was maintained throughout the three-year period. Pupils were occasionally changed in and out of this classroom as a result of obtaining a more suitable placement in another special program.

Attendance records the first year showed attendance rates varying from a low of sixty percent to a high of one hundred percent. The median attendance that year was ninety-seven percent. During the second year, attendance rates varied from a low of eighty-nine percent to a high of one hundred percent. The average rate of attendance for six pupils was ninety-five percent. The last year's records showed attendance rates varying from a low of eighty-one percent to a high of ninety-nine percent. The mean attendance for the last year was ninety-three percent.

PUPIL RESULTS

The availability of standardized tests is limited for pupils with hearing impairments. The Hiskey-Nebraska Test of Learning Aptitude was used annually as an evaluative device. It was felt that this instrument was not appropriate to be used as a pretest - posttest measure less than one year apart. Only three of these seven pupils were tested the previous year. The mean learning age for these three pupils the previous year was six years and the mean learning age the past year for the same pupils was eight years, two months. Table 19 shows the results for those tested each year.

TABLE 19

RESULTS OF THE HISKEY - NEBRASKA LEARNING APTITUDE TEST - HEARING HANDICAPPED, PRIMARY LEVEL

1967-68

N = 6

	Learning Age
Mean	7-5
Standard Deviation	1-6
Range	4-1 to 8-7
Median	7-6

1968-69

N = 7

	Learning Age
Mean	7-9
Standard Deviation	1
Range	6-5 to 9-6
Median	7-9

No comparisons can be made between mean learning ages in Table 19 because these are two different groups of pupils. The three pupils mentioned above are the only common pupils to both groups. The mean chronological age for the 1967-68 group was seven years, eight months. This shows that for those six pupils, the mean learning age was three months below the mean chronological age for the group. In 1968-69 the mean chronological age was seven years and four months. For those seven pupils, three of which were also in the other group, the mean learning age was five months above the mean chronological age. Since the three pupils mentioned earlier made such a large growth from the previous year, those gains are reflected in a higher mean learning age for the group in 1968-69.

From both the pre-school and primary level groups, thirteen pupils had scores on the Negraska Test of Learning Aptitude approximately one year apart. Three of the pupils were in this group. Two of the pupils were in the primary level group the previous year and ten in the pre-school groups both years. The following table gives group results for these thirteen pupils.

TABLE 20
RESULTS OF THE HISKEY - NEBRASKA LEARNING APTITUDE TEST - HEARING HANDICAPPED PUPILS TESTED 1967-1968 & 1968-1969

1967-68

N = 13

	Learning Age
Mean	5
Standard Deviation	1-3
Range	3-5 to 8-0
Median	4-6

1968-69

N = 13

	Learning Age
Mean	6-8
Standard Deviation	1-6
Range	4-3 to 9-6
Median	6-6

In addition to information shown in Table 20, another fact is that the mean chronological age for the group in 1967-68 was four years and nine months. The mean learning age was only one month higher than the mean chronological age. In 1968-69, the mean chronological age for the same group was five years and ten months. The mean learning age was ten months higher than the mean chronological age. This means that as a group they gained seven months more in learning age than they did in chronological age. A slightly larger difference can be seen in the differences between median learning ages.

Based on this measure, it is evident that more growth in intellectual ability took place in this group than would normally be expected.

One of the three pupils having two years results was randomly selected to show individual subtest results for the two years.

FIGURE 7

MEDIAN LEARNING AGE AND SUBTEST SCORES
FOR SELECTED PUPIL ON NEBRASKA TEST OF LEARNING APTITUDE

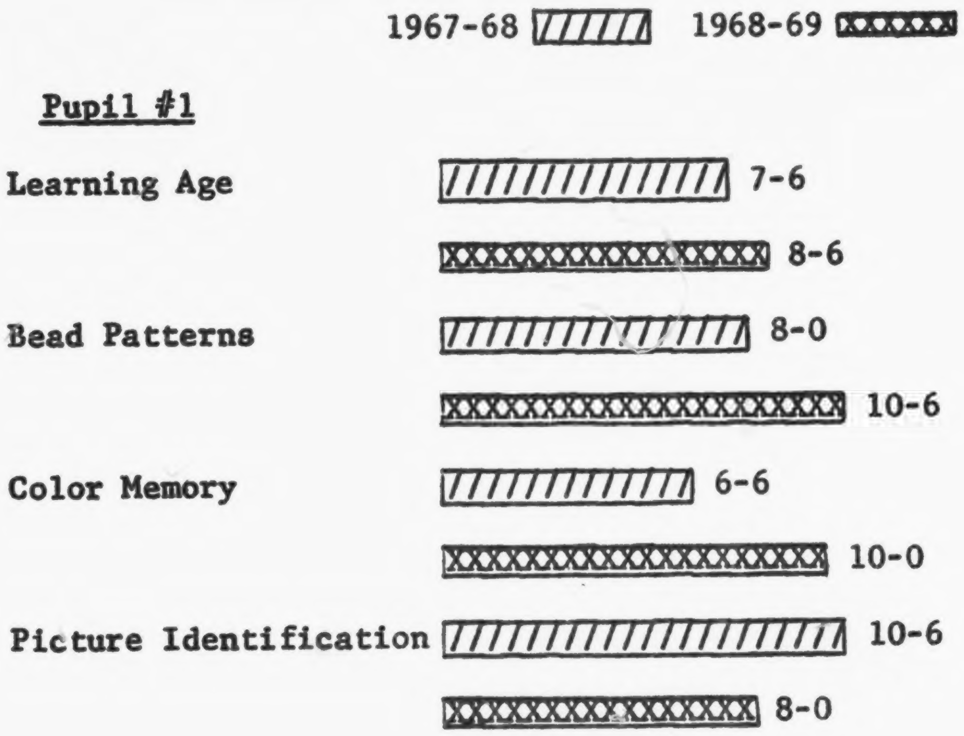
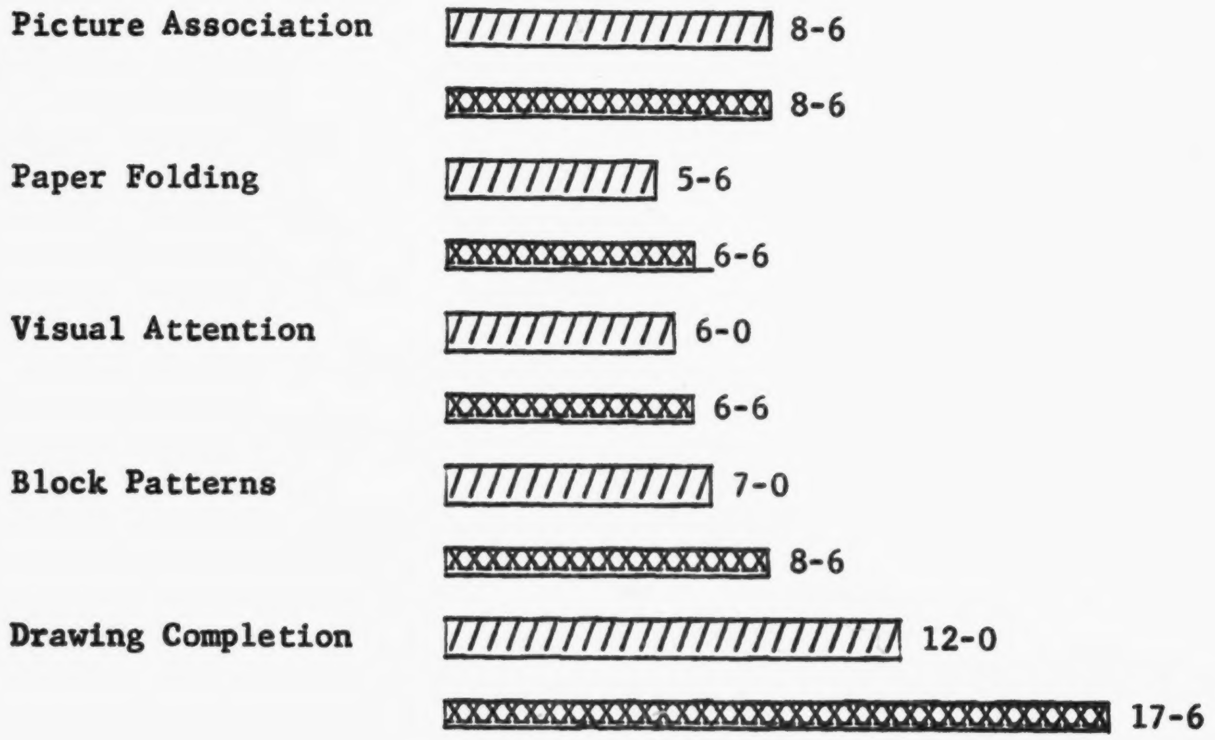


FIGURE 7 (Cont'd)



The pupil in Figure 7 had a chronological age of six years and six months when first tested and seven years, six months when tested in 1968-69. The pupil's median learning age for each test was exactly one year larger than his chronological age. The lowest scores were made in paper folding and visual attention while the highest scores were in picture completion, bead patterns, picture identification, and color memory. Note, however, that the picture identification score on the first test was considerably higher than on the second test.

One non-test source of data was a rating scale of curriculum items developed during the first year of the project and revised during the second year. A copy of the rating scale and accompanying guide appeared in the second annual evaluation report. The teacher was asked to rate each pupil on the items each November and May (except the first year the first rating occurred in January) so that it would serve as a pretest - posttest measure each year. Mean scores of all ratings each year are given for those receiving both pre and post ratings in the following table.

TABLE 21

MEAN RATING SCORES OF PRIMARY LEVEL
HEARING HANDICAPPED PUPILS FOR THREE YEARS

Year	Number of Pupils	Prerating Mean	Postrating Mean
1966-67	5	3.1	3.8
1967-68	5	3.9	4.0
1968-69	6	3.2	4.0

The rating scale used contained items listed in eighteen subheadings under the six major areas of: (1) sense training (2) socialization, (3) responsibility, (4) basic learning skills, (5) language development through speech elements, and (6) language development through concepts. The above mean rating scores were computed from the mean ratings given on each of the six major areas on the rating scale. A five-point rating scale was used with a rating of one being the lowest and five the highest. The intent of the design of the rating scale was to include items contained in the curriculum from the age three level to the age eight level.

The mean ratings were higher on the postrating each year than the preratings. The difference between prerating mean and postrating mean was about the same for the first and third year while there was only a slight difference between ratings during the second year.

Another measure of classroom progress each of the last two years was an individual pupil rating of progress in the academic areas of reading, spelling, and arithmetic. The frequency of those ratings for the last two years are presented in the following table.

TABLE 22

FREQUENCIES OF TEACHER RATINGS IN READING, SPELLING, AND ARITHMETIC - HEARING HANDICAPPED, PRIMARY LEVEL

Please rate the growth or progress you have observed for each pupil.

1967-68

	Frequency of Rating			
	Much	Moderate	Slight	Little or None
1. Growth in:				
a. Reading	4	0	1	1
b. Spelling	0	0	4	2
c. Arithmetic	4	1	0	1

Please rate the growth or progress you have observed for each pupil.

1968-69

	Frequency of Rating			
	Much	Moderate	Slight	Little or None
1. Growth in:				
a. Reading	4	3	0	0
b. Spelling	0	6	1	0
c. Arithmetic	1	4	1	1

During 1967-68, only fifty percent of the ratings given were in the moderate to much progress range. In 1968-69, eighty-six percent of the ratings were in that range. Another difference is the fact that more ratings of much progress were given the first year than the second year. This may be due to one or both of two things. There were only two pupils in the second group who were in the 1967-68 group, and there was a different teacher performing the rating.

CLASSROOM SUPPORTIVE SERVICES

The curriculum consultants in art, music, and physical education made regular visits to the classroom to assist the teacher in those areas. The art consultant suggested an approach which utilized various primary art materials. Most of the work provided opportunities for development of eye-hand coordination and tactile awareness. Various kinds of painting, cut and torn paper murals, and creating and making puzzles with tactile materials were some of the activities engaged in by individuals and the group as a whole. Music activities suggested by the consultant were designed to develop basic discriminations in sound, such as pitch, and to develop and/or modify rhythmical behavior to match certain physical movements. Suggested physical activities included development of overall physical fitness, coordination, balance, and perceptual-motor ability.

A modified version of the AAHPER Youth Fitness Test is given each year as a measure of progress in physical ability. Only the one pupil had both fall and spring test results during 1967-68. Group results for the first and third years are presented in Table 23.

TABLE 23

AAHPER YOUTH FITNESS TEST RESULTS
HEARING HANDICAPPED - PRIMARY LEVEL
1966-67

Measures N = 5	Fall Test Mean	Fall Test Range	Spring Test Mean	Spring Test Range
Sit-ups (number)	8.8	0 -14	11.2	1 -30
Shuttle Run (seconds)	14.8	17.8-12.4	13.8	16.8-11.9
Standing Broad Jump(inches)	29.6	20 -44	35.2	22 -48
25-Yard Dash (seconds)	7.6	8.6- 6.2	7.3	8.4- 6.0
Softball Throw (feet)	23.8	12 -50	35.0	18 -65

1968-69

Measures N = 6	Fall Test Mean	Fall Test Range	Spring Test Mean	Spring Test Range
Arm Hang (seconds)	9	12 - 5	12	29 - 5
Sit-ups (number)	7.7	0 -16	19.3	13 -28
Shuttle Run (seconds)	20.4	27.9-15.8	17.0	23.2-13.9
Standing Broad Jump(inches)	31	14 -41	32.8	13 -43
25-Yard Dash (seconds)	7.3	10.7- 5.9	5.9	7.6- 5.0

Results for each group show that as a group, improvement was made on each of the subtests given. Since none of the members of the first year's group were included in the last year's group, no comparison between groups or comparisons of individuals can be made. No norms were available for this age group or for modified subtests; therefore, no comparison can be made with a national sampling.

The Kraus-Weber Minimal Muscular Fitness Test was also administered to the group. Results of this test are reported in another section of this report.

OTHER PUPIL INFORMATION

End of the year staffing reports showed that none have been recommended to return to the regular classroom. Each year, except the past school year, some have been moved on to the next level hearing handicapped classroom sponsored by the local school district. The reports at the end of the 1968-69 school year did, however, recommend three pupils to participate in regular physical education classes with other regular pupils during the next school year.

COMMENTS ON RESULTS

Limitations among test data and availability of data for the three-year period hamper the drawing of conclusions. Comments by the teacher, consultants, and parents do indicate that all pupils have made progress, some at faster rates than others.

Test results do indicate that as a group from year to year, pupils are progressing at a rate faster than what might normally be expected.

For the group of thirteen pupils, many of whom are still pre-school age, test data show nearly all making considerable progress and growth in learning ability. Teacher ratings and opinion corroborate test findings.

The rating scale which was developed to assess progress among curricular activities has shown indications of being fairly reliable and valid. It does appear to be more useful for the teacher to help assess progress in class activities. One disadvantage in using the rating scale is the length of time necessary to cover all the items with each pupil individually. It does give a quantifiable measure of classroom progress.

It is evident from these results and from the opinions of those who have worked with these groups in any way that pupils do benefit from placement in a small group with a specially trained teacher. Pupils with varying degrees of hearing impairment can develop basic learning skills and social skills by working in a small group with the opportunity of association with many other normal hearing children.

SEVERELY ORTHOPEDICALLY HANDICAPPED
SECONDARY SCHOOL AGE

One supplementary classroom was provided for pupils having limiting orthopedic conditions. These pupils would be unable to participate in regular programs but were not severe enough to be in a homebound program or hospitalized. Some of the following conditions were possessed by pupils served by the classroom: spastic, brain damage, post spinal bifida, paraplegia, and athetoid cerebral palsy. Instruction was of necessity individualized because of the differences in the nature of the handicaps and a wide range of capabilities among the pupils.

OBJECTIVES

1. To improve communicative skills.
2. To improve basic skills in reading, mathematics, and spelling.
3. To improve personal adjustment to enable pupils to work in group situations.
4. To aid in the development of visual and motor skills to enable pupils to attain better body control.
5. To enable pupils to gain skills which will increase employability.
6. To discover and devise effective teaching techniques and superior instructional materials for severely orthopedically handicapped pupils.

METHODS AND PROCEDURES

Individualized instruction was a necessity in working with the orthopedically handicapped pupil. The curriculum was designed to meet the needs of the pupils in all academic areas from the fifth to twelfth grade levels. A specially trained teacher with the assistance of a teacher aide provided the motivation of acceptable behaviors, academic achievement, and social adjustment so vital to these pupils with limited physical functioning.

PUPILS PLACED IN CLASSROOM

Pupil records maintained by the teacher and others yielded the following information about the pupils placed in this classroom for three years:

1966-67

Age range at entrance: 12 years, 6 months to 22 years, 1 month

Race: All Caucasian

Sex: Five male

1967-68

Age range at entrance: 13 years, 6 months to 23 years, 1 month

Race: All Caucasian

Sex: Seven male

1968-69

Age range at entrance: 11 years, 11 months to 24 years, 1 month

Race: Eight Caucasian - one Spanish American

Sex: Nine male

Attendance rates for the special classroom varied each year. During 1966-67 only three pupils were in the class the entire year. The rate of attendance for all those placed varied from a low of eighty-nine percent to a high of one hundred percent with the mean special classroom attendance at ninety-six percent. The second year was nearly the same with a low of eighty-eight percent and a high of one hundred percent with a mean attendance of ninety-six percent. The last year found the attendance rate ranging between a low of thirty percent and a high of one hundred percent with a mean attendance rate of eighty-nine percent.

PUPIL RESULTS

The basic evaluative tests used for this classroom included the Peabody Picture Vocabulary Test (PPVT), the Wide Range Achievement Test (WRAT), and Goodenough-Harris Drawing Test. The drawing test had limited usage because of the difficulty in performance of the drawing task for many pupils in these groups.

The Peabody Picture Vocabulary Test gave a measure of verbal ability. Only three or four pupils had complete sets of data each year. The results for these are summarized in Table 24.

For the few pupils having pre and post scores each year, gains were made both in mean raw scores and mean standard scores. There appears to be an upward tendency in scores from year to year even though the same pupils were not always involved in the testing. One must also note that the pretest scores for the 1967-68 school year were the scores from the previous spring since no fall testing was completed for this group.

TABLE 24

PEABODY PICTURE VOCABULARY TEST RESULTS FOR ORTHOPEDICALLY HANDICAPPED

1966-67

N = 3	November	May
Raw Score Mean	73	85
Raw Score Median	70	83
Raw Score Range	64-85	79-93
Standard Deviation	8.8	5.8
Standard Score Mean	74	86
Standard Score Median	66	90
Standard Score Range	63-93	72-96
Standard Score, Standard Deviation	13.5	10.2

1967-68

N = 4	May '67	May '68
Raw Score Mean	91.3	99
Raw Score Median	88	100.5
Raw Score Range	79-110	83-112
Standard Deviation	12.0	10.7
Standard Score Mean	89.8	97
Standard Score Median	93	103
Standard Score Range	72-101	74-108
Standard Score, Standard Deviation	11.0	13.5

1968-69

N = 4	November	May
Raw Score Mean	88.8	94
Raw Score Median	90.5	93.5
Raw Score Range	78-96	90-99
Standard Deviation	6.7	4.1
Standard Score Mean	92.3	93.3
Standard Score Median	92	95.5
Standard Score Range	90-95	82-100
Standard Score, Standard Deviation	1.9	7

The Wide Range Achievement Test was used to measure growth in the basic skills of reading, spelling, and arithmetic. Complete pretest - posttest results were available for only one pupil the first year; therefore, only the last two years are summarized here.

TABLE 25

WIDE RANGE ACHIEVEMENT TEST RESULTS FOR ORTHOPEDICALLY HANDICAPPED - SECONDARY LEVEL

1967-68

N = 4	May '67	May '68
Reading		
G.E. Mean	5.4	7.0
G.E. Median	4.9	7.3
G.E. Range	2.4-9.3	2.8-10.5
Spelling		
G.E. Mean	5.4	5.3
G.E. Median	5.4	5.4
G.E. Range	3.7-7.0	3.0-7.4
Arithmetic		
G.E. Mean	7.0	6.2
G.E. Median	6.2	5.2
G.E. Range	2.9-12.8	2.3-12.3

1968-69

N = 4	November	May
Reading		
G.E. Mean	6.1	6.7
G.E. Median	6.0	6.9
G.E. Range	4.4-7.7	4.6-8.3
Spelling		
G.E. Mean	5.9	6.4
G.E. Median	6.3	6.5
G.E. Range	3.7-7.4	4.0-8.4
Arithmetic		
G.E. Mean	6.1	6.2
G.E. Median	5.3	5.6
G.E. Range	4.4-9.5	4.4-9.0

Gains in grade equivalent scores were evident only on the reading subtest for the 1967-68 data. These tests were given about one year apart, and losses were recorded for those four pupils as a group on the spelling and arithmetic subtests. Small gains were made from pretest to posttest on all three subtests during the past year. The amount of the gain for the group on each was smaller than the time lapse between tests.

Difficulty in performing tasks required by the tests limits the validity of the measures for these pupils. Poor communicative skills and physical fatigue on the part of some pupils may be reflected in the test results.

It may be more meaningful to look at results over a longer period of time, since these pupils progress at a much slower rate than do normal children. Three pupils in the last group also were in the first group and had test scores recorded from the first testing. The following table gives the grade equivalent scores and standard scores on the WRAT and standard scores on the PPVT approximately two and one-half years apart.

TABLE 26

INDIVIDUAL PUPIL TEST RESULTS
FROM FIRST AND THIRD YEAR

PPVT Standard Scores

	Nov. '66	May '69
Pupil 1	66	66
Pupil 2	63	82
Pupil 3	93	100

WRAT

	Nov. '66		May '69	
Pupil 1	G.E.	S.S.	G.E.	S.S.
Reading	2.2	62	3.2	67
Spelling	3.3	67	4.0	71
Arithmetic	1.5	58	3.4	68
Pupil 2				
Reading	6.0	84	8.3	93
Spelling	5.5	81	7.2	87
Arithmetic	3.4	69	4.9	75
Pupil 3				
Reading	5.4	85	6.8	86
Spelling	3.0	71	5.8	81
Arithmetic	5.7	89	9.0	98

The above pupils ranged in chronological age from fourteen years to sixteen years and one month at the time they were first tested. As indicated earlier, the limiting factors of difficulty in performance of required test tasks are evident among the results presented for these pupils. These results are probably typical of performance levels of many severely orthopedically handicapped pupils in this age range.

Individual gains are reflected in the standard score differences between tests. As seen in the table, pupil number three had most of his scores in the average range, while the standard scores of the other two pupils were below average.

Each of the last two years the teacher was asked to rate the progress and growth observed in each pupil in the academic areas of reading, spelling, and arithmetic. The frequencies of these ratings are given in the following table.

TABLE 27

FREQUENCIES OF TEACHER RATINGS IN READING, SPELLING, AND ARITHMETIC - ORTHOPEDICALLY HANDICAPPED, SECONDARY LEVEL

Please rate the growth or progress you have observed for each pupil.

1967-68

	Frequency of Rating			
	Much	Moderate	Slight	Little or None
1. Growth in:				
a. Reading	4	3	0	0
b. Spelling	3	4	0	0
c. Arithmetic	4	2	1	0

1968-69

	Frequency of Rating			
	Much	Moderate	Slight	Little or None
1. Growth in:				
a. Reading	5	3	0	0
b. Spelling	3	3	1	1
c. Arithmetic	5	2	1	0

The observed teacher ratings reflect some progress or growth occurring in nearly all pupils. Indications are, from these ratings, that most pupils made much progress in reading and arithmetic both years. Similar indications are not reflected in WRAT subtest results presented earlier. Only about half the pupils who were rated by the teacher had complete test data.

Limitations which occur in all testing situations also occur in this case. In addition, this was a small group with a severe handicap for which norms were not available. Limitations also are placed on the teacher's observed ratings. The basis upon which the ratings were made are not necessarily the amount of growth in terms of grade level.

CLASSROOM SUPPORTIVE SERVICES

The curriculum consultants in art, music, and physical education made regular visits to this classroom throughout the three-year funding period. The art consultant suggested a program of activities to help develop fine and gross motor skills, the improvement of eye-hand coordination, and an introduction to the history of art. Projects suggested included both two and three dimensional work such as wood or plaster sculptures, copper foil tooling, and painting with watercolors.

Activities designed to help improve rhythm and/or coordination and those that could be used during leisure time were suggested by the music consultant for use with this class. The consultant presented various musical and rhythm instruments and attempted to make the activities as near as possible to those a regular class would receive. The chord organ became a useful device to work toward the goals the consultant had for this group.

Physical activities were conducted in the gymnasium whenever possible with activities such as running laps in wheel chairs and basket shooting with balls the pupils could handle. No records were kept concerning physical improvement; however, the consultant did report that the length of time spent in various activities did increase gradually for most pupils.

OTHER PUPIL INFORMATION

End of the year staffing reports show that most pupils were recommended to continue in the program from year to year. During the last year, one pupil was transferred to a different program with one of the participating agencies due to transportation difficulties. The oldest pupil in the group did earn enough credit to graduate from his parent high school in May.

COMMENTS ON RESULTS

Complete test data for the group were limited to a few pupils. Data that were available indicate that the pupils were benefiting from this type of placement in terms of academic success. It is evident that progress is slow and that a specially trained and experienced teacher with the assistance of a classroom aide is essential to take care of the physical needs of these pupils. Supportive services in the non-academic areas were helpful in motivating the pupils to do better work in all areas. The wide age range and differences in types of orthopedic problems do not appear to deter but can enhance progress of individual pupils.

TRAINABLE MENTALLY HANDICAPPED
SECONDARY SCHOOL AGE

One supplementary classroom served mentally retarded adolescents ages fifteen to twenty-one. This program provided for some pupils who might otherwise not attend school or who would have to wait some time before entering a state institution. These pupils would be unable to participate in any type of regular or slow moving program at the educable level.

OBJECTIVES

1. To improve communicative skills.
2. To improve physical skills.
3. To enable pupils to more adequately care for themselves.
4. To improve personal and social adjustment.
5. To develop work habits, attitudes, and skills.
6. To promote worthy use of leisure time.
7. To discover and devise effective teaching techniques and superior instructional materials for trainable mentally handicapped students.

METHODS AND PROCEDURES

Prior to this project, the older adolescent mental retardate had not been provided for in the public school setting. The activities provided in this classroom were geared to the level of the pupils assigned to the class. Performance of everyday tasks and the use of communication in the performance of those tasks were emphasized in a training oriented curriculum. Various devices and techniques were used to develop manipulative skills and job training techniques to attempt to make each pupil a self-sustaining individual.

PUPILS PLACED IN CLASSROOM

Pupil records maintained by the teacher and other school personnel revealed the following information about the pupils placed in this classroom:

1966-67

Age range at entrance: 14 years, 2 months to 17 years, 4 months

Race: All Caucasian

Sex: Five male - three female

1967-68

Age range at entrance: 14 years, 7 months to 19 years, 1 month

Race: Ten Caucasian - one Spanish-American

Sex: Seven male - four female

1968-69

Age range at entrance: 15 years, 0 months to 20 years, 1 month

Race: Nine Caucasian - two Negro

Sex: Seven male - four female

The rates of attendance varied from year to year. During 1966-67, attendance rates varied from a low of seventy-nine percent to a high of ninety-nine percent with a mean attendance of ninety-two percent. The second year's attendance figures showed a low of seventy-two percent to a high of one hundred percent. The mean attendance for the second year was ninety-three percent. For 1968-69, attendance rates varied from a low of forty-four percent to a high of one hundred percent with a mean attendance for the group of ninety-one percent.

PUPIL RESULTS

The Peabody Picture Vocabulary Test was selected as a pretest - posttest measure of verbal ability. Individual pupil results were presented in the previous evaluation reports. Group results were summarized for presentation in Table 28.

Very slight differences occurred between pretest and posttest mean standard scores for each of the groups. However, one would not expect a great amount of difference to occur with this particular type of pupil. It can be noted that for these groups the raw score means did increase slightly each year. The standard scores on the PPVT were higher for most pupils than individually administered Binet's or WISC's.

TABLE 28
PEABODY PICTURE VOCABULARY TEST RESULTS FOR TRAINABLE MENTALLY HANDICAPPED-SECONDARY SCHOOL AGE

1966-67

N = 7	November	May
Raw Score Mean	57.0	58.1
Raw Score Median	52	57
Raw Score Range	42-81	46-71
Standard Deviation	12.8	8.7
Standard Score Mean	51	51.1
Standard Score Median	55	53
Standard Score Range	33-72	33-72
Standard Score, Standard Deviation	12.9	10.3

1967-68

N = 9	October	May
Raw Score Mean	60.9	63.4
Raw Score Median	60	65
Raw Score Range	44-95	42-93
Standard Deviation	13.1	13.9
Standard Score Mean	55.3	54.6
Standard Score Median	56	58
Standard Score Range	38-86	29-82
Standard Score, Standard Deviation	12.6	13.9

1968-69

N = 9	November	May
Raw Score Mean	55.2	57.8
Raw Score Median	62	63
Raw Score Range	30-70	34-71
Standard Deviation	13.3	11.9
Standard Score Mean	48	46.7
Standard Score Median	53	52
Standard Score Range	23-66	24-62
Standard Score, Standard Deviation	14.2	12.3

TABLE 29
WIDE RANGE ACHIEVEMENT TEST RESULTS FOR TRAINABLE MENTALLY HANDICAPPED - SECONDARY SCHOOL AGE

1967-68

N = 9	October	May
Reading		
G.E. Mean	1.7	1.8
G.E. Median	1.7	1.8
G.E. Range	Kg.2-4.4	Kg.1-4.6
Spelling		
G.E. Mean	2.2	2.3
G.E. Median	1.9	2.2
G.E. Range	1.0-4.0	1.3-4.3
Arithmetic		
G.E. Mean	Kg.7	1.1
G.E. Median	Kg.6	1.0
G.E. Range	PK.2-1.5	N.9-1.9

1968-69

N = 9	November	May
Reading		
G.E. Mean	1.4	1.6
G.E. Median	1.3	1.5
G.E. Range	Kg.1-3.5	Kg.2-4.4
Spelling		
G.E. Mean	2.1	2.1
G.E. Median	1.9	1.9
G.E. Range	1.3-4.0	Kg.2-4.3
Arithmetic		
G.E. Mean	Kg.9	Kg.8
G.E. Median	Kg.8	Kg.6
G.E. Range	0-1.9	0-1.9

The Wide Range Achievement Test was utilized as a measure of achievement in the basic skills of reading, spelling, and arithmetic. Like the PPVT results, individual results were reported in earlier evaluation reports and only the summary of those in the groups having pretest and posttest scores are reported.

Little,if any, differences occurred between pretest and posttest mean scores for each group. Only two pupils had complete data the first year; therefore, results were not reported here. Seven pupils in the last group were also in the previous year's results. Four of the pupils who were tested in May of 1967 (at the end of the first year) were also in the last year's group and tested in May of 1969. The following table shows results for those four pupils tested two years apart.

TABLE 30

INDIVIDUAL PUPIL TEST RESULTS
FROM FIRST AND THIRD YEAR

	PPVT Standard Scores	
	May '67	May '69
Pupil 1	37	39
Pupil 2	56	58
Pupil 3	40	35
Pupil 4	53	52

TABLE 30 (Cont'd)

INDIVIDUAL PUPIL TEST RESUTLS FROM FIRST AND THIRD YEAR (Cont'd)

	WRAT			
	May '67		May '69	
Pupil 1	G.E.	S.S.	G.E.	S.S.
Reading	1.0	56	1.0	56
Spelling	1.6	59	1.6	59
Arithmetic	Kg.4	53	Kg.4	53
Pupil 2				
Reading	2.0	61	2.4	63
Spelling	3.0	66	2.6	64
Arithmetic	1.5	58	1.0	56
Pupil 3				
Reading	Kg.2	52	Kg.2	51
Spelling	1.6	59	1.6	58
Arithmetic	Kg.2	52	Pk.2	46
Pupil 4				
Reading	3.2	66	4.4	73
Spelling	4.0	70	4.3	72
Arithmetic	1.0	54	1.9	60

As was indicated earlier in group results, little or no change was made from one set of test results to the other on an individual basis. These results are not much different than what was expected from a group of pupils in this category. The mean chronological age for the group when tested in May, 1967, was seventeen years and five months. This means, of course, for May, 1969, the mean chronological age was nineteen years and five months. As a group, the reading subtest on the WRAT was the only part that showed indications of improvement from one test to the other.

Another means of assessing pupil progress was a rating scale of curriculum items. This scale was initially developed during the first year of the project by the classroom teacher and members of the Research Division. The scale was revised during the second year so that items on the scale would be more appropriate to this age level. A copy of the rating scale and the guide for usage was presented in the second evaluation report.

Seven pupils in the group during the third year were also in the group the previous year. It was believed that more than one rating per year would not be beneficial. Mean scores of ratings in the major subheading areas were computed and are presented in the following table.

TABLE 31

MEAN RATING SCORES ON SELECTED CURRICULUM ITEMS FOR SEVEN PUPILS - TRAINABLE MENTALLY HANDICAPPED, SECONDARY SCHOOL AGE

Rating Scale Items	Mean Scores	
	Nov. '67	Nov. '68
Physical Growth and Development		
Motor Development	3.5	4.5
Manipulative Development	2.4	3.2
Organized Games	2.0	2.4
Musical Games and Rhythm	3.4	4.3
Self Care		
Clothing	3.8	3.8
Personal Hygiene	3.8	4.2
Eating	4.1	4.6
Safety	3.7	4.2
Communicative Abilities		
Listening and Speaking	3.6	4.2
Identification	3.9	4.1
Word Recognition	3.6	4.0
Number, Time, and Money Concepts	2.0	3.2

TABLE 31 (Cont'd)

Rating Scale Items (Cont'd)	Mean Scores (Cont'd)	
Work Skills and Habits	Nov. '67	Nov. '68
Care of Equipment and Materials	1.9	3.3
Preparing Meals	3.0	3.7
Cleaning	2.7	4.0
Care of Clothing	2.2	2.8
Home Responsibilities	2.5	2.6
Leisure Time Activities		
Listening and Viewing Activities	4.6	4.2
Art Activities	2.9	3.3
Music Activities	3.6	4.4
Sports and Games	3.2	4.4

A five-point rating scale was employed in rating these pupils with one being the lowest and five the highest rating. Some difficulty would be encountered in interpreting these rating scale results. Some of the items are not completely applicable to both male and female, and the scale has not been used sufficiently to determine whether or not there are equal scale intervals. In this instance, it may be considered a crude measure of how seven pupils progressed on curriculum items. According to mean rating scores for these pupils, most of the ratings increased on the average about one-half a rating scale point. This, however, did not measure the mean rating scores above the average rating range on the scale.

The teacher was also asked each of the last two years to rate the progress observed in the academic areas of reading, spelling, and arithmetic. Table 32 shows the frequencies of these ratings by the teacher for the last two years.

TABLE 32

FREQUENCIES OF TEACHER RATINGS IN READING, SPELLING, AND ARITHMETIC
TRAINABLE MENTALLY HANDICAPPED, SECONDARY SCHOOL AGE

Please rate the growth or progress you have observed for each pupil.

1967-68

	Frequency of Rating			
	Much	Moderate	Slight	Little or None
1. Growth in:				
a. Reading	0	4	2	4
b. Spelling	0	1	4	5
c. Arithmetic	0	3	3	4

1968-69

	Frequency of Rating			
	Much	Moderate	Slight	Little or None
1. Growth in:				
a. Reading	0	4	2	4
b. Spelling	0	0	5	5
c. Arithmetic	0	4	2	4

It is difficult to interpret how much progress is made from the ratings given in Table 32. In reflecting back to WRAT results presented earlier, one can observe some agreement between teacher ratings and test results in the reading and spelling areas. Another difficult area with these pupils is determining how much, if any, improvement to expect. It can be seen for individuals in these groups that they were able to raise test score results and teacher ratings in similar areas and increase ratings of progress among curriculum items.

CLASSROOM SUPPORTIVE SERVICES

The curriculum consultants in art, music, and physical education made regular visits to the classroom to assist the teacher in those areas. The art consultant suggested activities which would utilize art as a source of enjoyment and something that might lead to a hobby. Much of the work suggested was in three dimensional tasks of working with clay, weaving, and wood construction. The art consultant indicated that it was most difficult to plan the length of time needed for pupils to complete various types of projects.

Musical activities included the identification of rhythm instruments and their sounds, and activities which involved body movements with and without the use of an instrument. The consultant reported that most pupils enjoyed and participated in music activities and developed longer attention spans as each year progressed.

The physical education consultant suggested activities which were aimed at improving over-all physical fitness, coordination, balance, and perceptual ability. Ten basic calisthenic exercises were used daily throughout each year.

As one measure of the effects of the program, the consultant gave the American Association for Health, Physical Education, and Recreation Youth Fitness Test. Individual results were presented in previous evaluative reports. Group results for each year were summarized for presentation here.

TABLE 33

AAHPER YOUTH FITNESS TEST RESULTS
TRAINABLE MENTALLY RETARDED - SECONDARY SCHOOL AGE

1966-67

Measures N = 4	Fall Test Mean	Fall Test Range	Spring Test Mean	Spring Test Range
Sit-ups (number)	11.5	6 -20	16.8	12 -20
Shuttle Run (seconds)	15.5	19.7-11.7	14.7	17.6-11.5
Standing Broad Jump(inches)	39.0	24 -52	49.3	30 -71
50-Yard Dash (seconds)	10.1	10.9- 9.2	9.4	12.6- 7.6
Softball Throw (feet)	61.3	29 -94	83.8	38 -155
600-Yard Run-walk (min. and sec.)	4:22	5:35-3:08	4:12	5:24-2:36

1967-68

Measures N = 7	Fall Test Mean	Fall Test Range	Spring Test Mean	Spring Test Range
Pull-ups (number)	0.3	0 - 1	1.7	0 - 8
Sit-ups (number)	8.4	0 -18	18.9	11 -39
Shuttle Run (seconds)	13.3	14.9-12.0	12.6	15.4-11.1
Standing Broad Jump(inches)	42.3	29 -57	39.6	23 -52
Softball Throw (feet)	90.4	50 -146	80.9	31 -131
50-Yard Dash (seconds)	9.6	14.7- 6.7	9.7	14.1- 7.6
600-Yard Run-walk (min. and sec.)	4:42	5:08-3:24	3:42	5:25-2:26

1968-69

Measures N = 7	Fall Test Mean	Fall Test Range	Spring Test Mean	Spring Test Range
Sit-ups (number)	11.9	0 -25	17.9	2 -45
Shuttle Run (seconds)	13.9	20.1-11.0	16.2	18 -13
Softball Throw (feet)	62.3	23 -101	53	15 -90
50-Yard Dash (seconds)	14.1	25.4- 9.0	11.5	14.6- 9.3

Table 33 shows that as a group, some gains were made on most subtests. There is considerable fluctuation in performance on the same task from year to year. The first year's group was for boys while the second and third year's group each had three girls included. When comparing these results with the national norms for average boys and girls, one finds most of these performances falling below the fifth percentile level for this age group.

Other physical activities, such as bowling and skating, were utilized each of the last two years. The teacher reported that some pupils had improved in both activities over the two-year period.

OTHER PUPIL INFORMATION

Four pupils participated in this classroom all three years of the project's operation. Nine of the eleven in the group during the second year were also in the classroom during the third year. Some pupils left the program during the year or at the end of the school year because placement was obtained at a state institution or a private school facility where adequate treatment was available. Two of the pupils in the last group, however, were recommended for placement in an educable mentally handicapped program for the ensuing school year.

COMMENTS ON RESULTS

It was quite evident that the pupil characteristics for this group precluded the expectation of having rapid changes occur in pupil behaviors. Some individuals did make considerable change to the extent that two pupils could be moved into a higher level program. Test results bear out expected results in academic areas. However, this may have occurred only by chance since these tests are not basically designed to discriminate among small variations or changes for all types of children.

The rating scale which was utilized and revised may be more useful to the teacher as an evaluative means of communicating with parents regarding pupil progress than as a general evaluative measure for the classroom as a whole. Some question still exists concerning equal scale intervals. A sufficient number of ratings with the revised form have not been given to totally evaluate the rating scale's effectiveness.

In terms of the pupil's ability and teacher observation, nearly half of each group made some growth in reading and arithmetic. This progress was evidently in relation to common, everyday reading tasks and arithmetic skills in dealing with exchange of money.

Older trainable level pupils are able to benefit from experiences in a classroom setting. However, comments from the teacher and others who worked with these pupils in this type of setting still suggest a facility which lends itself better in providing a workshop type of experience.

EMOTIONALLY DISTURBED
ELEMENTARY GRADES 3-4

One supplementary classroom was provided for pupils, grade levels three and four, who had emotional handicaps. These pupils were unable to benefit from regular classroom instruction even when supportive assistance was provided. Pupils placed may be described as having a combination of characteristics such as the following: excessive daydreaming, inappropriate emotional responses, intense fears, excessive withdrawal, irresponsible social behavior, and perceptual disabilities.

OBJECTIVES

1. To enable pupils to achieve academically at levels appropriate to age, grade, and intelligence.
2. To improve the pupils' ability to express themselves in nonverbal areas.
3. To discover and devise effective teaching techniques and superior instructional materials for children with emotional disturbances.
4. To improve attitudes toward self, school, and others.
5. To improve and further develop motor skills and coordination.
6. To improve personal and social adjustments so that successful reentry into the regular classroom can be effected.

METHODS AND PROCEDURES

Provision was made for specialized instruction for children who were hyperactive, withdrawn, or have poor interpersonal relationships, and who have average ability but are retarded one or more years in academic achievement. A structured program was necessary with each child's time programmed individually. The work expected of each child was carefully planned and suitable to the learning level and frustration level. Positive reenforcement with clearly stated consequences for unacceptable behaviors and/or work was an essential part of the program.

PUPILS PLACED IN CLASSROOM

Pupil records maintained by the teacher and other school personnel were examined and revealed the following information about the pupils in this class:

1966-67

Age range at entrance: 9 years, 4 months to 11 years, 6 months
Race: All Caucasian
Sex: Ten male

1967-68

Age range at entrance: 9 years, 0 months to 11 years, 1 month
Race: Eight Caucasian - one Negro
Sex: Six male - three female

1968-69

Age range at entrance: 7 years, 10 months to 9 years, 11 months
Race: Eight Caucasian
Sex: Seven male - one female

Attendance records show that the rate of attendance in this classroom varied among the pupils assigned and between groups during the three-year period. In 1966-67, the rate of attendance varied from a low of seventy-two percent to a high of one hundred percent. Mean attendance for that year was ninety-five percent. During the second year, attendance rates varied from a low of seventy-two percent to a high of one hundred percent with a mean attendance rate of ninety-four percent. In 1968-69, attendance rates varied from a low of eighty-seven percent to a high of ninety-nine percent. The mean attendance rate for the last year was ninety-four percent.

A maximum enrollment of eight pupils was maintained throughout the project period. There were times, however, when fewer than eight pupils were actually placed in the classroom.

PUPIL RESULTS

The Peabody Picture Vocabulary Test was selected as a pretest - posttest measure of verbal ability. Form A was used as the pretest measure, and Form B was used as the posttest measure. Individual pupil results for the first two years were reported in previous evaluation reports. Those results, along with the last year's results, were summarized for presentation in Table 34.

Table 34 shows that pretest - posttest results are available for six pupils each year. There were no common pupils in the three groups. Standard score means and raw score means show increases for both the first and third year with a decrease occurring during the second year. These results do show that gains were made from pretest to posttest each year, and that the results for the second year may have been influenced greatly by one or two pupils.

TABLE 34
PEABODY PICTURE VOCABULARY TEST RESULTS FOR EMOTIONALLY DISTURBED - GRADES 3-4

1966-67

N = 6	November	May
Raw Score Mean	77.5	82.5
Raw Score Median	81.5	82.5
Raw Score Range	61-85	77-88
Standard Deviation	8.8	3.3
Standard Score Mean	92.8	100.3
Standard Score Median	97.5	101
Standard Score Range	65-115	95-105
Standard Score, Standard Deviation	15.6	3.0

1967-68

N = 6	October	May
Raw Score Mean	75.5	74.5
Raw Score Median	75	77
Raw Score Range	69-85	64-83
Standard Deviation	5.3	7.6
Standard Score Mean	102.3	93.3
Standard Score Median	101	96
Standard Score Range	90-115	74-108
Standard Score, Standard Deviation	8.5	10.3

1968-69

N = 6	November	May
Raw Score Mean	65	70
Raw Score Median	64.5	68
Raw Score Range	48-86	52-89
Standard Deviation	12.6	14.1
Standard Score Mean	87.8	89.3
Standard Score Median	85.5	88
Standard Score Range	61-116	61-122
Standard Score, Standard Deviation	21.3	22.1

The Wide Range Achievement Test was used as a measure of basic skills in reading, spelling, and arithmetic. This was considered earlier as a possible measure of academic progress. Individual WRAT results were also reported previously; and, as was the case with the PPVT results, the WRAT data were summarized by year for presentation.

Table 35 shows that only three of the pupils had complete results in 1966-67. The other groups of six pupils each were the same pupils for whom PPVT results were shown earlier. This table also shows that gains in grade equivalent scores were made on the reading subtest and the arithmetic subtest each year and the spelling subtest during the last year. It is interesting to note that the amount of group gains tended to increase each year on all three subtests. The gains that were made during the last year were more significant in terms of the time lapse between tests than those of the previous years. Even though grade equivalent scores on the WRAT are still lower than expected for this age group, it also appears that the pupils as a group were "catching up" faster than might normally be expected in terms of achievement level.

TABLE 35
WIDE RANGE ACHIEVEMENT TEST RESULTS FOR EMOTIONALLY DISTURBED - GRADES 3-4

1966-67

N = 3	November	May
Reading		
G.E. Mean	3.9	4.3
G.E. Median	4.5	5.0
G.E. Range	2.5-4.7	2.3-5.5
Spelling		
G.E. Mean	3.4	3.4
G.E. Median	3.5	3.2
G.E. Range	2.5-4.2	2.2-4.7
Arithmetic		
G.E. Mean	3.2	3.7
G.E. Median	3.0	3.6
G.E. Range	2.1-4.5	2.4-3.2

1967-68

N = 6	October	May
Reading		
G.E. Mean	2.8	3.4
G.E. Median	2.6	3.6
G.E. Range	1.0-4.4	Kg.8-5.1
Spelling		
G.E. Mean	2.4	2.4
G.E. Median	2.4	2.5
G.E. Range	1.3-3.5	1.1-3.5
Arithmetic		
G.E. Mean	3.1	3.5
G.E. Median	3.4	3.9
G.E. Range	2.1-3.9	1.0-5.0

1968-69

N = 6	November	May
Reading		
G.E. Mean	2.2	3.1
G.E. Median	2.2	2.8
G.E. Range	1.4-2.9	2.1-4.4
Spelling		
G.E. Mean	1.9	3.0
G.E. Median	1.8	2.8
G.E. Range	1.6-2.7	2.2-4.2
Arithmetic		
G.E. Mean	2.8	4.1
G.E. Median	2.9	3.9
G.E. Range	2.4-3.0	3.2-5.2

The Goodenough-Harris Drawing Test was utilized the first two years as a measure of intellectual maturity. The Goodenough Draw a Man Test was used the last year. The means of standard scores for those having both pretest and posttest results each year are listed below:

1966-67

Man		Woman		Self	
Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
83	80	76	70	81	74

1967-68

Man		Woman		Self	
Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
86.7	89.8	74.2	88.3	83.0	91.0*

*One pupil refused to take the posttest.

1968-69

Man	
Pretest	Posttest
76.7	81

Each year six pupils had pretest and posttest scores on the drawing tests. Group standard score means reflect some growth on various drawing tests,even on some where posttest means are lower than pretest means. One must consider the time lapse between tests, and the fact that posttest standard scores were still in the same range as pretest standard scores. When individuals are able to hold their own level in terms of standard scores, gains are made.

The teacher was asked each of the last two years to rate the growth or progress observed in reading, spelling, and arithmetic achievement for each pupil. The frequencies of those ratings are given in the following table.

TABLE 36

FREQUENCIES OF TEACHER RATINGS IN READING, SPELLING, AND ARITHMETIC - EMOTIONALLY DISTURBED, GRADES 3-4

Please rate the growth or progress you have observed for each pupil.

1967-68

1. Growth in:	Frequency of Rating Much	Moderate	Slight	Little or None
a. Reading	1	2	2	1
b. Spelling	0	1	3	2
c. Arithmetic	1	4	0	1

1968-69

1. Growth in:	Frequency of Rating Much	Moderate	Slight	Little or None
a. Reading	2	6	0	0
b. Spelling	4	3	1	0
c. Arithmetic	2	6	0	0

The teacher ratings seem to corroborate the results in these areas on the WRAT. All or nearly all pupils were rated as making moderate to much growth during the last year. At the same time, gains were indicated on the WRAT subtests from nine months to one year and three months on the three subtest areas. An exception to agreement between ratings and gain scores on the WRAT subtests was in the arithmetic area in 1967-68. In that case nearly all were rated as having made moderate to much growth by the teacher, while the group mean gain was four months on the arithmetic subtest.

Limitations which exist in all testing situations are also applicable in this situation. The tests used were not basically designed to discriminate small changes over a relatively short period of time. They do, however, give some indications and a means of measuring progress for these pupils even though special norms are not available for pupils with this type of handicap.

CLASSROOM SUPPORTIVE SERVICES

As in the other supplementary classrooms, the consultants in art, music, and physical education made regular visits to this classroom to assist the teacher in those areas. Art projects and activities were assigned primarily on an individual basis utilizing various media such as clay, tempera, crayon, colored chalk, copper foil, and a variety of paper. The art consultant also used this classroom as part of a study in evaluation of creativity which will be discussed later in this report.

Activities proposed by the music consultant were aimed at improving cooperative behavior and establishing appropriate rhythmical behaviors. Music periods were typically divided into short segments with a different approach used during each segment.

An objective stated earlier for this classroom was that of improving and further developing motor skills and coordination. The physical education consultant also wanted to establish better peer and group behavior, to improve physical fitness, coordination, balance, and perceptual motor ability. Structured activities were utilized almost individually since little success was found with group activities.

To measure the effectiveness of the physical activities program, the consultant administered the American Association for Health, Physical Education and Recreation Youth Fitness Test. The consultant also tested these pupils with the Kraus-Weber Minimal Muscular Fitness Test. The Kraus-Weber results will be discussed later in the report. AAHPER results for those having both fall and spring test results each year are given in Table 37.

Table 37 shows that some gains were made on most test activities each year. Since less than half of the pupils had complete results each year, little can be interpreted for the group as a whole. No national norms were available for this age group except during the first year. The performances, then, were far below the median, so it was assumed the latter results would be much the same. Some individuals did, however, perform fairly well on the test.

TABLE 37
AAHPER YOUTH FITNESS TEST RESULTS
EMOTIONALLY DISTURBED, GRADES 3-4

1966-67

Measures N = 3	Fall Test Mean	Fall Test Range	Spring Test Mean	Spring Test Range
Pull-ups (number)	1	0 - 3	1.3	0 - 3
Sit-ups (number)	4.3	3 - 6	5	3 - 8
Shuttle Run(seconds)	18.9	19.6-18.3	15.3	16.2-14.7
Standing Broad Jump(inches)	34	30 -39	40.7	40 -41
50-Yard Dash (seconds)	11.0	12.2- 9.6	6.9	7.5- 6.1
Softball Throw (feet)	39	30 -45	47.3	32 -60
600-Yard Run-walk (min. and sec.)	5:24	6:06-4:13	4:48	5:36-3:45

1967-68

Measures N = 3	Fall Test Mean	Fall Test Range	Spring Test Mean	Spring Test Range
Pull-ups (number)	1.3	0 - 2	0.7	0 - 2
Sit-ups (number)	18	4 -25	25.7	8 -38
Shuttle Run (seconds)	15.9	18.2-14.6	15.1	21.0-11.2
Standing Broad Jump(inches)	43.3	36 -47	48.3	41 -52
50-Yard Dash (seconds)	9.2	10.5- 8.4	9.1	10.2- 8.6
Softball Throw (feet)	76.3	50 -90	59.3	48 -70
600-Yard Run-walk (min. and sec.)	4:00	4:32-3:26	4:00	4:18-3:27

1968-69

Measures N = 4	Fall Test Mean	Fall Test Range	Spring Test Mean	Spring Test Range
Flex-Arm Hang (seconds)	0.8	1 - 0	2	3 - 1
Sit-ups (number)	11.5	5 -15	14.3	2 -33
Shuttle Run (seconds)	14.1	15.9-12.8	13.9	15.7-12.8
Standing Broad Jump(inches)	40	35 -46	39.8	30 -56
50-Yard Dash (seconds)	10.0	10.3- 9.8	9.5	10.2- 8.7
Softball Throw (feet)	32.3	25 -39	44	40 -53

OTHER PUPIL INFORMATION

During the three-year period of operation, one of the goals was to return pupils to the regular classroom programs as quickly as feasible. The first year saw two pupils returned, the second year three, and the third year two other pupils were recommended to return to the regular classroom program. Some pupils were recommended to remain in this classroom more than one year, while others were recommended for another type of special placement.

COMMENTS ON RESULTS

It was quite clear that each of the objectives was not fulfilled for all pupils. There was notable improvement in some areas among individual pupils. In terms of test data, the rate of raising the achievement level among pupils was greatest during the third year. Non-test sources of data indicate about the same results as did the test data.

The fact that two pupils during the first year, three pupils during the second year, and two pupils during the third year were returned to regular classroom programs provides evidence of some success of the special classroom program. Apparently, having a small group of hyperactive or otherwise disturbed youngsters working with a specially trained teacher on an individually prescribed program is an effective way of alleviating some problems which allows some to return to normal or near normal functioning.

EMOTIONALLY DISTURBED
ELEMENTARY GRADES 5-6

One supplementary classroom was provided for pupils in the fifth or sixth grade who had emotional handicaps which prevented them from profiting from the regular instructional program even when supportive assistance was available. These pupils may be described as having any one or a combination of several of the following characteristics; excessive daydreaming, inappropriate emotional responses, intense fears, excessive withdrawal, hyperactivity, irresponsible social behavior, and perceptual disabilities.

OBJECTIVES

1. To improve personal and social adjustment, including self-control, so that satisfactory contacts with environment can be made and reentry into regular programs can be effected.
2. To improve attitudes toward school and schoolwork.
3. To develop desirable study habits.
4. To enable children to achieve at levels appropriate to age, grade, and intelligence.
5. To discover and devise effective teaching techniques and superior instructional materials for emotionally disturbed pupils.

METHODS AND PROCEDURES

Provision was made for specialized instruction for children who were hyperactive, withdrawn, or had poor interpersonal relationships, and who had average ability but were retarded one or more years in academic achievement. A structured program was necessary with each child's time programmed individually. The work expected of each child was carefully planned and suitable to the learning and frustration level of the child. Positive reenforcement with clearly stated consequences for unacceptable behaviors and/or work was an essential part of the program.

PUPILS PLACED IN CLASSROOM

Pupil records maintained by the teacher and other school personnel were examined and yielded the following information about the pupils placed in this classroom:

1967-68

Age range at entrance: 10 years, 10 months to 12 years, 3 months
Race: Ten Caucasian - one Negro
Sex: All male

1968-69

Age range at entrance: 10 years, 6 months to 12 years, 9 months
Race: Eight Caucasian - one Spanish-American
Sex: Seven male - two female

This classroom was added at the beginning of the second year of operation in order to decrease the wide age range in the previous class and to serve more pupils. Attendance information from 1967-68 showed that the rate of attendance for these pupils varied from a low of ninety-one percent to a high of ninety-eight percent. The mean attendance that year was ninety-six percent. For the 1968-69 school year, the attendance rate varied from a low of eighty-seven percent to a high of ninety-nine percent with a mean attendance of ninety-five percent.

PUPIL RESULTS

The Peabody Picture Vocabulary Test was selected as a measure of verbal ability. Individual pupil results were reported in the previous evaluation report for the 1967-68 group. Only the group results are reported here for the last two years.

Form A of the PPVT was used as the pretest measure and Form B as the posttest. Standard score means show little variation from pretest to posttest both years. This indicates that, as a group, these pupils maintained about what is normal expected growth over the seven-month period between tests. One must conclude, then, that group gains were evident.

TABLE 38
PEABODY PICTURE VOCABULARY TEST RESULTS FOR EMOTIONALLY DISTURBED - GRADES 5-6

1967-68

N = 8	October	May
Raw Score Mean	79.4	82
Raw Score Median	82.5	80
Raw Score Range	63-86	66-100
Standard Deviation	7.4	9.0
Standard Score Mean	92.8	93.6
Standard Score Median	97	92
Standard Score Range	68-102	69-119
Standard Score, Standard Deviation	10.9	13.3

1968-69

N = 7	November	May
Raw Score Mean	84	83.4
Raw Score Median	85	82
Raw Score Range	67-93	57-101
Standard Deviation	8.2	12.8
Standard Score Mean	99.9	95.3
Standard Score Median	101	94
Standard Score Range	77-116	64-111
Standard Score, Standard Deviation	11.5	14.7

The Wide Range Achievement Test was utilized as a measure of basic skills in reading, spelling, and arithmetic. This was considered as a measure of academic progress. Complete individual results were reported in the previous evaluation report. Only group results are shown in Table 39.

It is quite obvious from Table 39 that, as a group, each year considerable mean gains were made on each of the WRAT subtests. Recalling that the time lapse between tests each year was approximately seven months, it can be observed that reading subtest gains were eight months and one year, two months respectively; spelling subtest gains were five months and nine months respectively; and arithmetic subtest gains were one year, six months and one year, three months respectively. According to this measure, the pupils in these groups were advancing at a rate greater than normal expected growth. It should also be recognized that the level of achievement for these pupils is still considerably below normal grade level assignment for pupils of this age range. Some individuals were able to pull up to or about reach expected grade level in some areas.

TABLE 39
WIDE RANGE ACHIEVEMENT TEST RESULTS FOR EMOTIONALLY DISTURBED - GRADES 5-6

1967-68

N = 8	October	May
Reading		
G.E. Mean	3.6	4.4
G.E. Median	3.5	4.3
G.E. Range	1.9-5.5	2.0-7.3
Spelling		
G.E. Mean	3.1	3.6
G.E. Median	3.7	3.5
G.E. Range	1.5-4.5	2.5-5.5
Arithmetic		
G.E. Mean	3.5	5.1
G.E. Median	4.1	5.2
G.E. Range	2.9-4.7	2.9-6.7

1968-69

N = 7	November	May
Reading		
G.E. Mean	3.0	4.2
G.E. Median	2.4	4.2
G.E. Range	1.6-5.2	2.4-7.3
Spelling		
G.E. Mean	2.7	3.6
G.E. Median	2.6	3.2
G.E. Range	2.0-4.3	2.6-6.7
Arithmetic		
G.E. Mean	3.5	4.8
G.E. Median	3.2	5.0
G.E. Range	3.0-4.9	3.4-6.9

The Goodenough-Harris Drawing Test was used during 1967-68 as a measure of intellectual maturity. During the past year, the Goodenough Draw a Man Test was used for the same purpose. The means of the standard scores for those having pretest and posttest results are listed below:

1967-68

Man		Woman		Self	
Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
83.3	87.1	76.6	81.6	80.4	85

1968-69

Man	
Pretest	Posttest
78	82.9

Individual results for pupils in 1967-68 were reported in the previous evaluation report. Only group results are given here. It is again evident that, as a group, the pupils in each of these classes did make gains using these test results as a measure of intellectual maturity. It is also clear that these gains are not outstanding since most of the pre - post scores within the same range are below median expectations.

Only one pupil remained in this classroom over one year. This pupil was phased back to a regular class in the same school during November, 1968. Pretest scores from the previous year and posttest scores from the past year were available for this pupil. Those results are given in the following table.

TABLE 40

TEST RESULTS FOR PUPIL IN CLASSROOM
MORE THAN ONE YEAR

PPVT

	Standard Score	
	Nov. '67	May '69
Pupil 1	102	111

WRAT

	Nov. '67		May '69	
	S.S.	G.E.	S.S.	G.E.
Reading	92	5.5	96	7.3
Spelling	85	4.5	92	6.7
Arithmetic	86	4.7	94	6.9

The pupil in the above table had a chronological age of eleven years and seven months at the time when tested in November, 1967. For May, 1969, the chronological age was then thirteen years and one month. While one year and six months elapsed between tests, nearly two years' increase was indicated in grade equivalents on the reading and arithmetic subtests and over two years' increase on the spelling subtest.

Limitations inherent in all testing situations also apply to these results. These tests are not basically designed to discriminate small changes over a short period of time. They do give some indication and a means of measuring progress for these pupils even though special norms for this type of handicap are not available.

CLASSROOM SUPPORTIVE SERVICES

Some of the direct supportive services for this classroom were provided by the curriculum consultants in art, music, and physical education. Regular visits to the classroom were made by each of the consultants to assist the teachers in these areas.

The art consultant was interested in using art as a means of gaining in the development of the self-concept, as a creative and accepted means of expression, and as an appropriate emotional outlet which would hopefully reinforce learning in the academic areas. A wide variety of media was utilized,and pupils were encouraged to combine and experiment with the media. This classroom, along with four others, was used as part of the evaluation of creativity which is reported later in this report.

Music activities suggested by the music consultant were those to attempt to establish cooperative group behavior and activities that could be used during leisure time. Various musical and rhythm instruments were presented with varying degrees of interest and abilities exhibited by the pupils.

Physical activities were aimed at: (1) improving peer and group behavior; (2) improving overall physical fitness, coordination, and balance; and (3) improving perceptual-motor ability. The consultant suggested a regular calisthenic program plus many gymnastic types of activities and games. The American Association for Health, Physical Education and Recreation Youth Fitness Test was selected as a measure of physical fitness. Pretest and posttest results were available for only three pupils each of the two years the classroom was in operation.

TABLE 41

AAHPER YOUTH FITNESS TEST RESULTS
EMOTIONALLY DISTURBED, GRADES 5-6
1967-68

Measures N = 3	Fall Test Mean	Fall Test Range	Spring Test Mean	Spring Test Range
Pull-ups (number)	1	0 - 3	2.7	0 - 7
Sit-ups (number)	11.3	8 -17	18.7	16 -20
Shuttle Run (seconds)	13.5	16.3-11.5	12.5	16.0-10.1
Standing Broad Jump(inches)	40	26 -49	49	39 -60
50-Yard Dash (seconds)	12.2	15.5-10.0	10.2	13.5- 8.3
Softball Throw (feet)	48.7	32 -68	61.3	32 -76
600-Yard Run-walk (min. and sec.)	4:14	7:00-2:51	3:30	5:39-2:16

1968-69

Measures N = 3	Fall Test Mean	Fall Test Range	Spring Test Mean	Spring Test Range
Sit-ups (number)	22	14 -36	28.7	18 -41
Shuttle Run (seconds)	15.4	17.2-14.3	13.7	14.8-12.4
Standing Broad Jump(inches)	40.7	28 -51	41.3	32 -47
50-Yard Dash (seconds)	10.9	11.0- 9.2	10.1	11.4- 8.9
Softball Throw (feet)	53	34 -90	53	32 -85

With only about one-third of the class each year involved in test results, it is difficult to infer how the class performed. For those tested, gains were indicated on nearly all parts of the test both years. Nearly all the mean scores during May of each year were below median expected performance based on national norms for this age group. Only the pull-up results for 1967-68 with a fifty-five percentile rating came near a median performance with most of the other scores falling below the twentieth percentile and many of those below the fifth percentile.

OTHER PUPIL INFORMATION

One of the goals of the supplementary classroom program was to return pupils to the regular classroom program as quickly as feasible. For this classroom, during 1967-68, five pupils were returned to the regular classroom either during the year or at the end of the year. During the past year, four pupils were returned to regular classroom programs. Two pupils were recommended for a different special education placement, and one was recommended for a private school placement during the two-year period.

COMMENTS ON RESULTS

Based on available test data, it was quite perspicuous that the pupils attending this class each year benefited in terms of increasing achievement levels. Interest level was apparently high, as well, in terms of high rates of attendance in the special classroom. The move at the end of the first year to form this classroom in addition to another classroom in order to narrow the age and ability ranges was evidently a success. Non-test sources of data do indicate that not all endeavors were successful. The non-test sources, such as teacher or consultant reports, closely parallel those of the test data.

The fact that nine pupils in two years were able to return to regular classroom activities is suggestive of some of the success the classroom experienced.

EDUCABLE MENTALLY HANDICAPPED, EMOTIONALLY DISTURBED AGES 9-11

An additional classroom was included in the supplementary program the past year. This classroom provided for pupils who exhibited emotional problems as well as low intellectual ability determined by individual testing. Children placed in this room were unable to benefit from instruction provided in the regular classroom or special classroom for educable mentally handicapped pupils. The low intellectual ability in addition to hyperactivity, intense fear, excessive withdrawal, inappropriate social behavior, and perceptual difficulties characterized the type of pupil placed in the classroom.

OBJECTIVES

1. To identify characteristics of children with severe learning difficulties and/or emotional problems.
2. To discover and devise teaching techniques and instructional materials to use with low ability,disturbed children.
3. To design programs to improve the pupils' self-control to enable them to work in group activities.
4. To improve the pupils' ability to express themselves in nonverbal areas.
5. To develop desirable study habits.
6. To improve personal and social adjustment to enable the pupil to reenter regular or other special programs.

METHODS AND PROCEDURES

Children who have lower ability levels and also exhibit behaviors of the disturbed child were provided a climate of very specific and easily understood rules and conditions. Behavior modification techniques along with periods of venting feelings and frustrations in a "therapeutic-like" setting provided the consistency and practice in socialization necessary for the child to gain enough in academic and emotional adequacy to eventually return to the regular or other special classroom programs.

PUPILS PLACED IN THE CLASSROOM

Pupil records maintained by the teacher and other personnel were examined and revealed the following information about the pupils placed in this classroom.

1967-68

Age range at entrance: 8 years, 2 months to 11 years, 10 months
Race: Six Caucasian - two Negro
Sex: All male

1968-69

Age range at entrance: 9 years, 10 months to 11 years, 5 months
Race: All Caucasian
Sex: Four male - three female

Attendance records showed during 1967-68 that the pupils' attendance for that year was seventy-eight percent. For the last year, attendance rates varied from a low of eighty-nine percent to a high of ninety-nine percent. The mean attendance fell at ninety-four percent during the last year.

PUPIL RESULTS

The Peabody Picture Vocabulary Test was selected as a pretest - posttest measure of verbal ability. Five pupils during 1967-68 and six pupils during 1968-69 had both pretest and posttest results. Individual results were reported for 1967-68 in the previous evaluation report. Only summarized results for both years are reported here.

Form A of the PPVT was used as the pretest measure and Form B as the posttest measure. Slight gains were shown in raw score means for both groups, while standard score means remained fairly static. The change in standard score median in relation to the standard score mean from pretest to posttest in 1968-69 is evidence of the fluctuation of standard scores both upward and downward.

TABLE 42
PEABODY PICTURE VOCABULARY TEST RESULTS FOR
EMOTIONALLY DISTURBED - EDUCABLE MENTALLY HANDICAPPED AGES 9-11

1967-68

N = 5	October	May
Raw Score Mean	64.6	66.8
Raw Score Median	65	67
Raw Score Range	59-71	60-73
Standard Deviation	3.9	4.5
Standard Score Mean	80.6	79.4
Standard Score Median	74	74
Standard Score Range	71-100	73-90
Standard Score, Standard Deviation	10.7	7.1

TABLE 42 (Cont'd)

1968-69

N = 6	November	May
Raw Score Mean	71.3	75.5
Raw Score Median	71.5	74.5
Raw Score Range	60-80	66-85
Standard Deviation	8.0	5.9
Standard Score Mean	89.5	88.5
Standard Score Median	76	88
Standard Score Range	74-107	76-102
Standard Score, Standard Deviation	14.6	7.7

The Wide Range Achievement Test was used as a measure of basic skills in reading, spelling, and arithmetic. These results were considered as providing a measure of academic progress. As before, individual results for 1967-68 were presented in the previous evaluation report. Only the summarized results for the last two years are shown in Table 43.

Grade equivalent mean scores for the group in 1967-68, on a pretest - posttest basis, indicate less growth in terms of months difference in mean grade equivalent than the time lapse in months between tests. This was not true of the group in 1968-69. With approximately seven months time lapse between tests, the mean grade equivalent difference in reading was seven months, in spelling six months, and arithmetic one year. For the group during the last year, the mean chronological age at entrance was ten years, six months. Normal expectation of performance would be fifth grade level, approximately 5.3, at the time of pretesting. Even though substantial gains were made, it is obvious that the pupils are still retarded in terms of this achievement measure by two to three years.

TABLE 43

WIDE RANGE ACHIEVEMENT TEST RESULTS FOR
EMOTIONALLY DISTURBED - EDUCABLE MENTALLY HANDICAPPED AGES 9-11

1967-68

N = 5	October	May
Reading		
G.E. Mean	1.4	1.4
G.E. Median	1.9	1.9
G.E. Range	Kg.2-2.5	Kg.2-2.5
Spelling		
G.E. Mean	1.3	1.6
G.E. Median	1.4	1.5
G.E. Range	Kg.4-2.2	Kg.9-2.3
Arithmetic		
G.E. Mean	1.1	1.3
G.E. Median	Kg.9	1.4
G.E. Range	N.5-2.4	Kg.1-2.4

1968-69

N = 6	November	May
Reading		
G.E. Mean	2.5	3.2
G.E. Median	2.7	3.5
G.E. Range	1.3-3.0	1.8-3.8
Spelling		
G.E. Mean	2.3	2.9
G.E. Median	2.5	2.7
G.E. Range	1.4-2.7	1.7-4.5
Arithmetic		
G.E. Mean	2.7	3.7
G.E. Median	2.8	3.6
G.E. Range	2.2-3.2	3.2-4.2

The Goodenough-Harris Drawing Test was utilized in 1967-68 as a measure of intellectual maturity. The Goodenough Draw a Man Test was used during the past year for the same purpose. Individual results from 1967-68 were given in the previous evaluation report along with group mean standard scores. Only the group mean standard scores are presented here for both years.

1967-68

Man		Woman		Self	
Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
70.0	74.6	66.0	65.2	71.4	75.0

1968-69

Man	
Pretest	Posttest
68.8	72.5

Mean standard scores for both groups show a tendency to increase slightly. This indicates that the pupils were, on the average, making at least normal expected growth in intellectual maturity even though these are considerably below median expectations for this age group.

Each year the teacher was asked to rate observed growth in reading, spelling, and arithmetic. Frequencies of these ratings are given in Table 44.

TABLE 44

FREQUENCIES OF TEACHER RATINGS IN READING, SPELLING, AND ARITHMETIC - EMOTIONALLY DISTURBED, EDUCABLE MENTALLY HANDICAPPED, AGES 9-11

Please rate the growth or progress you have observed for each pupil.

1967-68

	Frequency of Rating			
	Much	Moderate	Slight	Little or None
1. Growth in:				
a. Reading	0	2	1	2
b. Spelling	0	2	1	2
c. Arithmetic	0	0	3	2

Please rate the growth or progress you have observed for each pupil.

1968-69

	Frequency of Rating			
	Much	Moderate	Slight	Little or None
1. Growth in:				
a. Reading	2	4	1	0
b. Spelling	2	2	1	2
c. Arithmetic	3	1	3	0

There appears to be a fair relationship between teacher ratings and the amount of gain or loss in grade equivalent on the corresponding WRAT subtests. This is difficult to test because of the small frequencies in each rating cell. Table 44 does show that the teacher must have observed much the same kinds of growth as revealed in the earlier test data. In 1967-68 only, twenty-seven percent of the teacher ratings were moderate to much while during 1968-69, sixty-seven percent of the teacher ratings were moderate to much. The amounts of corresponding grade equivalent gains on the WRAT subtests were considerably higher during the last year.

Limitations which apply to all testing situations would apply to these test results. Even though the same person administered both the pretest and posttest, the sensitivity of the instruments to small changes and no available norms for this type of handicapped child limits thorough analysis and/or conclusions based on results.

CLASSROOM SUPPORTIVE SERVICES

Supportive services were provided by the curriculum consultants in art, music, and physical education. Each of the consultants made regular visits to the classroom to assist the teacher in the above areas. The art consultant suggested activities aimed at enabling the pupils to use art as a means of expression, to better the self-concept, and to develop acceptance of others as well as themselves. A variety of media, projects, and motivations were used in an attempt to fulfill the above objectives. This classroom was also included in the creativity evaluation performed by the art consultant and is described later in this report.

Music activities, suggested by the music consultant, were geared toward improving rhythmical behavior and establishing a "liking" for music activities. These activities ranged from simple "game-type" situations to using simple musical and rhythm instruments. Progress toward objectives was reported as slow and gradual.

The physical education consultant wished to improve overall physical fitness, coordination, endurance, balance, and perceptual motor ability. A recommended calisthenic program along with other activities in which the pupils could succeed was used. The American Association for Health, Physical Education and Recreation Youth Fitness Test was utilized as a measure of physical fitness on the pretest--posttest basis. During 1967-68, only four pupils were tested in the fall,and six pupils had all or part of the test in the spring. The 1968-69 results were complete for only one pupil with the number of pupils taking all or part of the test varying from three to six. The results presented are for those taking the test at the time it was presented with varying numbers of pupils from fall to spring testing.

TABLE 45

RESULTS OF AAHPER YOUTH FITNESS TEST FOR
EMOTIONALLY DISTURBED - EDUCABLE MENTALLY HANDICAPPED AGES 9-11

1967-68

Measures	Fall Test Mean	Fall Test Range	Spring Test Mean	Spring Test Range
Pull-ups (number)	0.3	0 - 1	1.2	0 - 4
Sit-ups (number)	4.8	0 -12	23.2	10 -44
Shuttle Run (seconds)	15.9	20.0-12.3	14.3	18.0-11.1
Standing Broad Jump(inches)	26	17 -43	31.5	21 -46
50-Yard Dash (seconds)	14.0	16.0-10.8	11.6	14.2- 9.4
Softball Throw (feet)	47.8	15 -82	49.3	30 -60
600-Yard Run-walk (min. and sec.)	3:59	6:11-3:18	3:52	4:11-3:28

TABLE 45 (Cont'd)

1968-69

Measures	Fall Test Mean	Fall Test Range	Spring Test Mean	Spring Test Range
Flex-arm Hang (seconds)	1.7	0 - 4	3.3	0 - 7
Sit-ups (number)	16.7	9 -24	19.5	13 -30
Shuttle Run (seconds)	17.4	25.4-14.6	15.4	23.9-13.2
Standing Broad Jump(inches)	26.6	3 -44	26	6 -37
50-Yard Dash (seconds)	18.1	44.0- 9.8	12.7	22.0- 9.8
Softball Throw (feet)	40.5	7 -68	46.8	11 -60

Mean test results for these groups are not meaningful in terms of gains or losses from pretest to posttest. They are presented in order to show the level of performance of these pupils. It can be noted that one pupil's poor performance on some of the tests in 1968-69, as indicated by the range of results, does greatly affect the means on those tests. All of the mean score performances rank in the twentieth percentile or below based on national norms for normal children.

The physical education consultant also administered the Kraus-Weber Test of Minimal Muscular Fitness to this group. Those results are discussed later in this report.

OTHER PUPIL INFORMATION

One of the goals of the supplementary classrooms was to return the pupils to regular classroom programs. In this particular class there was an alternative. The pupils could be phased into another type of special placement. During or at the end of the 1967-68 school year, two pupils returned to their regular classrooms due to transportation difficulties, three pupils were transferred to their base schools to reenroll in the educable mentally handicapped classrooms, one pupil was transferred to another Title III special classroom, and two pupils were recommended to remain in this classroom the following school year. Among the pupils in the classroom during the past year, one returned to an EMH program during the year. End of the year recommendations were to return three pupils to EMH classrooms, one pupil to enroll in a learning difficulties class in his own school district, one pupil to remain in this classroom for the following year, and one pupil to return to a regular class in the same school.

COMMENTS ON RESULTS

The Peabody Picture Vocabulary Test results confirmed low level ability to some extent. However, it would be difficult to distinguish these results from results in other classrooms having pupils with emotional problems or other learning difficulties. The pupils did appear to maintain some growth over time in both groups.

The Wide Range Achievement Test results showed considerable increases during the past year as compared to the previous year. This may be due in part to almost a totally different group of pupils and a number of other factors.

Teacher ratings of achievement appear to parallel that of test results, although this was not verified Other sources of non-test data indicate that some pupils do benefit from this structured type of setting, while others apparently profit more in less structured settings. The difficulty in handling situations with these groups was apparently an unresolved problem. The type of pupils placed in the classroom and the structure of the classroom were recommended to be changed for the ensuing school year.

EXPERIMENTAL CLASSROOM FOR NEGRO UNDERACHIEVERS, GRADE 6

An experimental classroom was established for the purpose of providing a program to discover and attempt to remedy the underlying causes of Negro underachievement. This classroom served sixth grade pupils in a building having a predominantly Negro population.

The intent of the program was to search for reasons which brought about underachievement. When symptoms were identified, then plans could be formulated to mitigate these symptoms in order to facilitate the pupils' achievement in their regular classwork.

OBJECTIVES

1. To identify the characteristics of Negro underachievement in the Wichita area.
2. To discover causes that bring about these characteristics.
3. To develop techniques to enable teachers or persons dealing with Negro underachievers to remedy the causes of underachievement.
4. To enable a change in behaviors to occur in a positive direction.
5. To alleviate external pressure in order to promote internal motivation.
6. To improve the pupils' sense of responsibility.

METHODS AND PROCEDURES

A sixth grade level experimental room attempted to determine the underlying causes for underachievement in Negro pupils of average or above ability. Promotion of a positive self-concept, independence of expression, and development of personal traits exemplified the more or less unstructured setting for small groups of pupils. One hour per day was taken from the regular class activities to work in groups of no more than four pupils at one time in a separate setting.

Criteria for the selection of pupils were:

1. A score of 95 or above on an individual intelligence test
2. One year or more below grade level on the ITBS test results
3. Should not show the characteristics of being emotionally disturbed
4. Should not be a school discipline problem
5. Should be placed in the experimental room for the entire year, unless dismissal appeared to be in the best interest of the pupil or the program.

PUPIL RESULTS

In order to meet placement criteria, one requirement was a score of ninety-five or greater on an individual intelligence test. The Wechsler Intelligence Scale for Children (WISC) was selected for usage as the placement test. Summarized results for each group and results for both groups combined are given in the following table.

TABLE 46
RESULTS FOR SIXTH GRADE NEGRO UNDERACHIEVERS ON THE WECHSLER INTELLIGENCE SCALE FOR CHILDREN

1967-68

N = 11	
Verbal Scale I.Q.	
Mean	98.9
Median	100
Standard Deviation	5.7
Range	87-106
Performance Scale I.Q.	
Mean	103.8
Median	104
Standard Deviation	4.0
Range	94-108
Full Scale I.Q.	
Mean	101.3
Median	101
Standard Deviation	2.8
Range	96-106

1968-69

N = 9	
Verbal Scale I.Q.	
Mean	96.3
Median	97
Standard Deviation	8.7
Range	85-109
Performance Scale I.Q.	
Mean	108.7
Median	108
Standard Deviation	12.3
Range	93-140
Full Scale I.Q.	
Mean	102.3
Median	103
Standard Deviation	9.4
Range	88-121

Results for Two Years

N = 20	
Verbal Scale I.Q.	
Mean	97.8
Median	99.5
Standard Deviation	7.3
Range	85-109
Performance Scale I.Q.	
Mean	106
Median	106
Standard Deviation	9.1
Range	93-140
Full Scale I.Q.	
Mean	101.8
Median	101.5
Standard Deviation	6.7
Range	88-121

The group mean and median full-scale I.Q. scores for each group and both groups combined indicate average ability among the pupils. Performance scale I.Q. scores were higher on the average than verbal scale I.Q. scores each of the two years; thus, it was higher for the combination of the two groups. The difference between performance scale scores and verbal scale scores was more pronounced in the 1968-69 group than in the previous group.

It should be noted that some pupils were placed in the room on a tentative basis due to prior test results, and prior to the time when an individual test could be administered. Therefore, the low end of the range of full scale I.Q. scores for 1968-69 fell below the ninety-five or greater which was indicated as one criterion of placement.

Another way to examine the differences in results in the verbal and performance areas on the WISC is to look at the subtest scaled scores. The mean scaled score on each subtest is ten. These scaled scores were tallied by subtest in three categories: (1) below average, (2) average, and (3) above average. Frequencies of those scores are given in Table 47.

Table 47 shows the frequency of scaled scores below average in the verbal area to be greater than the number of scores above average on all subtests except Similarities. The reverse is true in the performance area except the Block Design subtest. The Block Design scores were about normally distributed.

TABLE 47

FREQUENCY OF SIXTH GRADE NEGRO UNDERACHIEVERS RESULTS ON WISC SUBTEST SCALED SCORES

Subtest N = 20	Below Average Scaled Score	Average Scaled Score	Above Average Scaled Score
Verbal Area:			
Information	9	4	7
Comprehension	12	3	5
Arithmetic	10	4	6
Similarities	4	5	11
Vocabulary	13	3	1
Digit Span	5	4	3
Performance Area:			
Picture Completion	9	1	10
Picture Arrangement	7	2	11
Block Design	5	10	5
Object Assembly	4	2	14
Coding	8	0	12
Totals	86	38	85

Table 48 shows a two-by-two table of numbers of subtest scaled scores, both above and below average, for the verbal and performance scales on the WISC. The chi-square statistic was selected to determine whether or not there was a significant difference in the distribution of subtest frequencies. In this case, the chi-square showed significant difference in favor of scores falling below average in the verbal scale area and above average in the performance scale area.

These results seem to typify the common conception of underachievers. Poor performance of verbal skills seems to result in poor achievement in school, even though average overall ability may be indicated.

TABLE 48

SIXTH GRADE NEGRO UNDERACHIEVERS WITH WISC VERBAL AND PERFORMANCE SUBTEST SCORES ABOVE OR BELOW AVERAGE

	Verbal Scale	Performance Scale	Total
Above Average	33	52	85
Below Average	53	33	86
Total	86	85	171

$X^2 = 8.8$

$df = 1$

$p < .01$

The Peabody Picture Vocabulary Test was used as a pretest - posttest measure of verbal ability. Complete test results were not available for all pupils both years. Results of those having both tests are summarized in Table 49.

PPVT results for both groups show that standard score means were in the average range. There was a slight decline from pretest to posttest during 1967-68, and an increase was shown during 1968-69. Standard score means on the PPVT each year were slightly lower than verbal scale means on the WISC taken approximately the same time.

TABLE 49

PEABODY PICTURE VOCABULARY TEST RESULTS FOR NEGRO UNDERACHIEVERS GRADE 6

1967-68

N = 9	October	May
Raw Score Mean	81.7	82.4
Raw Score Median	81	82
Raw Score Range	67-80	76-92
Standard Deviation	7.4	4.2
Standard Score Mean	96.8	93
Standard Score Median	95	94
Standard Score Range	77-112	85-100
Standard Score, Standard Deviation	9.8	5.4

1968-69

N = 8	November	May
Raw Score Mean	80.1	87.6
Raw Score Median	80.5	84.5
Raw Score Range	76-90	76-103
Standard Deviation	4.3	10.0
Standard Score Mean	91.1	99.3
Standard Score Median	91	97.5
Standard Score Range	81-100	81-122
Standard Score, Standard Deviation	6.8	13.4

The Wide Range Achievement Test was used as a measure of basic skills in reading, spelling, and arithmetic. Individual results for the previous year were presented in the 1967-68 evaluation report. Summarized results for both years are given in Table 50.

TABLE 50

WIDE RANGE ACHIEVEMENT TEST RESULTS FOR
NEGRO UNDERACHIEVERS, GRADE 6

1967-68

N = 9	October	May
Reading		
G.E. Mean	5.9	8.1
G.E. Median	5.9	7.9
G.E. Range	4.6-8.1	5.2-11.7
Spelling		
G.E. Mean	5.4	5.9
G.E. Median	5.7	5.8
G.E. Range	3.7-6.8	4.0-7.2
Arithmetic		
G.E. Mean	5.0	5.4
G.E. Median	5.2	5.3
G.E. Range	4.2-5.7	3.9-6.7

1968-69

N = 8	November	May
Reading		
G.E. Mean	4.7	6.0
G.E. Median	4.1	5.5
G.E. Range	1.3-8.9	4.2-8.9
Spelling		
G.E. Mean	4.3	5.4
G.E. Median	3.9	5.1
G.E. Range	1.3-7.4	3.7-8.4
Arithmetic		
G.E. Mean	5.0	5.8
G.E. Median	5.3	5.9
G.E. Range	3.9-5.7	4.4-6.9

Gains were made from pretest to posttest both years on all three subtests. Each of the mean gains during 1968-69 were greater than the mean gains made the previous year. The educational significance is shown in the large mean gains made both years on the reading subtest. The classroom was not basically designed to provide reading activities. The time spent in the classroom was designated to supplant the social studies aspect of the regular curriculum.

The indicated mean grade equivalent scores show that, as a group, the pupils were still achieving below grade level for the most part. They were, however, apparently closing the gap between where they were when they started and where they were when they completed the year's program.

The teacher was also asked to rate the growth, or progress, in these areas based on classroom observations. The frequencies of those ratings for both years are given in Table 51.

TABLE 51

FREQUENCIES OF TEACHER RATINGS IN READING, SPELLING, AND ARITHMETIC - NEGRO UNDERACHIEVERS, GRADE 6

Please rate the growth or progress you have observed for each pupil.

1967-68

	Frequency of Rating			
	Much	Moderate	Slight	Little or None
1. Growth in:				
a. Reading	0	8	0	0
b. Spelling	1	7	0	0
c. Arithmetic	0	8	0	0

TABLE 51 (Cont'd)

Please rate the growth or progress you have observed for each pupil.

1968-69

	Frequency of Rating			
	Much	Moderate	Slight	Little or None
1. Growth in:				
a. Reading	4	3	4	0
b. Spelling	3	4	4	0
c. *Arithmetic	5	4	0	1

*Only ten ratings were given in Arithmetic.

Table 51 shows that during 1967-68, all pupils were rated as making moderate to much growth in all three areas. During the past year, only about two-thirds to nine-tenths were rated as making that much growth. This does not coincide too well with the previous set of test results in the same three areas. Those test results showed greater amounts of growth during the past year. Teacher ratings in this case are more severely limited than the other classrooms, because this teacher had the pupils only one hour per day and did not purposely cover any of the areas rated as a part of the program.

Limitations which apply in all testing situations also apply in this case. The WISC was used only as a placement device, but it does give some other indications. Only one standardized measure was used to assess progress. This test may not discriminate enough over a short period of time.

Supportive services by the curriculum consultants in art, music, and physical education were available for this classroom on request. They were not expected to visit this classroom on a regular basis as was the case with most of the other classroom programs.

Since these pupils would proceed to the regular seventh grade program the following school year, staffings held for these pupils were in the form of making some recommendations to the junior high school personnel in terms of suggested activities and level of ability assignment.

OTHER PUPIL INFORMATION

Ten of the eleven pupils who were in the 1967-68 group were assigned regular classes during the past year as seventh graders at two junior high schools. These pupils were tested with the WRAT and PPVT in May of 1969, one year after the posttest scores of the previous year. These results are presented in the following table.

TABLE 52

WIDE RANGE ACHIEVEMENT TEST AND PEABODY PICTURE VOCABULARY TEST RESULTS FOR 1967-68 NEGRO UNDERACHIEVERS - TEST ONE YEAR LATER

N = 10	May '68	May '69
WRAT		
Reading		
G.E. Mean	7.6	7.6
G.E. Median	7.4	7.2
G.E. Range	3.5-11.7	4.2-11.6
Spelling		
G.E. Mean	5.6	6.4
G.E. Median	5.7	5.8
G.E. Range	3.0-7.2	4.0-8.4
Arithmetic		
G.E. Mean	5.1	4.9
G.E. Median	5.3	5.5
G.E. Range	2.9-6.7	1.0-6.9

TABLE 52 (Cont'd)

N = 10	May '68	May '69
PPVT		
Standard Score Mean	92.8	92.6
Standard Score Median	92.5	91
Standard Score Range	85-100	87-100

On the reading subtest of the WRAT, six pupils raised their grade equivalent score by nine months on the average. The other four pupils scored losses in grade equivalent of one year and three months on the average. Therefore, grade equivalent mean scores on the reading subtest remained equal. On the spelling subtest, eight pupils raised their grade equivalent scores by one year and one month on the average, while one pupil's score remained the same, and one pupil had a three-month loss. On the arithmetic subtest, five pupils raised their grade equivalent scores, on the average, by six months, while one pupil's score remained the same, and four other pupils had an average loss of one year and four months.

Only minor changes occurred in the PPVT standard scores from one year to the next. The greatest amount of change in standard scores was a decrease of seven points for one pupil. All other changes were four points or less. As Table 52 shows, the group PPVT scores were stable.

COMMENTS ON RESULTS

It would appear that the selection process designed to identify pupils to assign to this classroom was effective and successful. Test results seem to support common feelings of how an underachiever performs.

A rather unusual phenomenon occurred in the reading subtest results. It was interesting to note that changes in behaviors were manifested in the gains evidenced in the reading scores. Other test results are evidence of some pupils being able to make greater gains than might normally be expected of them without the special assignment. There is, however, no evidence that other kinds of changes from normal procedures might not have produced similar results, or that similar results might not have occurred in a different school with a different race.

It would appear that gains produced while in the special classroom were not sustained over time when pupils were returned to regular assignments. This might also be influenced by the additional change of school setting and class organization.

Pupils in this classroom have shown evidences of success which might not have occurred without the special assignment to this classroom.

FOLLOW-UP OF TITLE III CLASSROOM PUPILS

During or at the end of the first two years of operation, sixty-five pupils left the special classrooms operated in the Title III project. Reasons for leaving the special classroom were: (1) transferred back to regular classroom, (2) moved to another district, city, or state, (3) admitted to state or private institutions, (4) transferred to another type of special classroom, (5) moved on to next grade when no further program was available, and (6) parental request due to transportation or other difficulties. The following table shows the classroom and the number of pupils leaving for one of the above reasons during the first two years of the project.

TABLE 53

NUMBER OF PUPILS LEAVING TITLE III CLASSROOMS

Classroom	Number
Learning Disabilities - Level I	5
Learning Disabilities - Level II	11
Learning Disabilities - Junior High	8
Hearing Handicapped - Primary Level	4
Emotionally Disturbed - Grades 3-4	10
Emotionally Disturbed - Grades 5-6	6
Emotionally Disturbed - Educable Mentally Handicapped	5
Emotionally Disturbed - Junior High	5
Negro Underachievers - Grade 6	11
TOTAL	65

Table 53 includes the junior high level emotionally disturbed classroom which operated only the last half of the first year and all of the second year. The classroom was discontinued at the end of the second year due to staffing and other problems.

Information regarding the location of two of the sixty-five pupils was not available. Inquiries and information sheets were sent to building principals for the fifty-three pupils known to be in school. The remaining ten pupils were either in state or private institutions or had moved from the city or state. Information on forty-five of the fifty-three pupils or eighty-five percent was returned. The amount of information on individual pupils varied on each returned sheet. Some sheets indicated only that the pupil had moved to another location, while others had recorded complete subject and grade information as well as attendance information and group and/or individual test results from that school. Of the forty-five pupils on whom information was obtained, thirty-seven information sheets were complete enough to compare their performance in terms of grades earned, test results, attendance records, and in some cases, attitudes and behavior described by teachers and/or counselors. Therefore, only fifty-seven percent of the original sixty-five pupils remained with enough information to assess progress after attending a Title III classroom. Of these, it appeared that nine pupils' performance went up, nineteen performed to about the same level, and nine pupils' performance tended to regress.

COMMENTS

It is very difficult to try to generalize since there was a wide age variation among the pupils, and many other factors entered into the way pupils perform in school other than those examined. In several cases, the fact that a pupil performed as well after being in a special classroom as he did prior to entering, may in fact be an improvement in individual cases. It appears, when one considers the multiplicity of factors involved, that the classroom program did help the majority of pupils and a good percentage of them are performing now in such a way that they are likely to succeed in school. Predictions at this point in time have limiting factors. Among these, severity of some of the types of handicaps some pupils have, many pupils may require more time than given to observe true changes in behaviors, and data examined was very limited.

CHAPTER V

OTHER EVALUATIVE INFORMATION

During the three-year project period, the supplementary classroom teachers and consultants were encouraged to experiment with and/or develop materials and/or teaching techniques while working with the various types of handicapped children. Twenty different qualified teachers served in the nine to thirteen classrooms during the three-year period. Five persons served as consultants in art, music, physical education, and resource materials.

In order to determine the background and experience of the teachers, each teacher was interviewed during the last part of the third year. The list of interview questions can be found in Appendix A. Reports and other information were submitted by the consultants regarding special projects and/or evaluations.

TEACHER INTERVIEW DATA

Eleven different classrooms in six areas of handicaps were in operation during the third year of the project. Four of the eleven teachers had been with the project since it began. The following list of information descirbes the teachers:

Sex: Ten female - one male

Race: Ten Caucasian - one Negro

Mean years of teaching experience: 11 years

Range in years of teaching experience: 0-26 years

Mean number of college hours: 164.5 semester hours

Range of number of college hours: 132-199 semester hours

	Type of Degree	Number
Highest degree held:	Bachelor of Science	2
	Bachelor of Science plus additional graduate hours	3
	Master of Arts	5
	Master of Arts plus additional graduate hours	1

	Type of Training	Number
Special Fields of Training:	Learning Disabilities	5
	Emotionally Disturbed	5
	Trainable Handicapped	1
	Orthopedically Handicapped	1
	Hearing Impaired or Deaf	2
	Elementary Education	5
	Educational Psychology	2
	Library Science	1
	Language Arts	2
	Mentally Retarded	2
	Counseling	1
	Homemaking	1

	Type of Training	Number
Additional Training Taken During the Project Period:	Remedial Reading	1
	Trainable Handicapped	1
	Speech Defective	1
	Occupational Therapy	1
	Learning Disabilities	3
	Nursery Training	1

The teachers were asked the kinds of materials they made or developed during the project. The following list summarizes the types made.

A. Teacher made worksheets for:
   (1) money counting (Trainables)
   (2) mathematics materials
   (3) writing practice (with music)
B. Language Master cards for:
   (1) mathematics work
   (2) reading and word practice
C. Developed reading program from several sources
D. Adapted published materials to fit level of ability of individual pupils

Various types of teaching techniques were used in conjunction with materials and equipment. The summary list follows:

A. Individual structured assignments
B. Behavior modification techniques
C. Repetition (utilizing Language Master or tape recorder)
D. Eye - hand coordination (utilizing typewriter or chord organ)
E. Timing of various tasks or activities
F. Weekly assignment sheets
G. Provision of success experiences (used for motivation of more difficult tasks)
H. Parroting back incorrect speech sounds for hearing training

The classroom teachers also responded regarding the materials and equipment they felt the most effective. The following list will show the type and the areas in which it was used.

Type of Equipment	Areas Used
Language Master	Underachievers, L.D., E.D., T.M.H.
Tape recorder	All areas
Peabody Kits (various levels)	H.H., T.M.H., L.D.
Overhead projectors	L.D., E.D., O.H.
Electric typewriters (primary type)	O.H.
Filmstrip and record player	L.D., E.D.
E.D.L. Reader	L.D.
Auditory records and player	H.H.
Study carrels	L.D., E.D.
Blackboard	All areas
Properly fitted wheel chairs	O.H.
Amplification system (with hearing aids)	H.H.

Type of Materials	Areas Used
Short, precise assignments	L.D., E.D.
Daily study plans	E.D.
S.R.A. Reading Laboratories	L.D., E.D.
Bloomfield Linguistic Readers	L.D.
Sullivan Reading Series	O.H.
Open Court Series	H.H.

The teachers were also asked for general reactions to the project and to give suggestions for improvement for others who might want to model a program after this one. These responses were categorized under those things that were helpful or useful and suggestions for improvement.

Helpful or useful responses:

"staffings were very helpful"

"referral screening very useful"

"support from coordinators, psychologists, and social workers was a help"

Suggestions for improvement responses:

"all learning disability children with emotional problems should have therapy"

"class placement should be contingent upon parent involvement and participation"

"close cooperation with regular classroom teachers so that more placement of pupils in some regular class activities could be made"

"before a child is admitted to an Emotionally Disturbed classroom, he should have a thorough physical exam"

PRESENTATION OF CONSULTANT DATA

The curriculum consultants in art, music, and physical education were scheduled for regular visits to each of the supplementary classrooms except the Negro Underachievers and the Junior High L.D. during the third year. The art consultant reported that in most instances she worked directly with the class for approximately one hour while the teacher observed and/or participated. Projects were initiated with verbal and/or written plans for the teacher to use for completion of the work or project. The consultant encouraged the teacher to utilize his or her own ideas for projects and allowed the teacher to determine the schedule of art periods for the week.

The consultant conducted a study during the last two years entitled, "Evaluative Study in Creativity." Six elementary classrooms involving pupils having learning disabilities and those having emotional problems were used. In the study, each pupil was presented a set of eight plates (8½x11) with a predetermined mark on each plate. The only instruction given was that each pupil had to use the predetermined mark as part of his drawing. This procedure was used three times during the second year of the project and twice during the third year. The set of eight plates per pupil was then evaluated on the basis of the following criteria: (1) conventionality, (2) theme variability, (3) physical expansion, (4) form initiation, and (5) elaboration. Results by classroom were charted by the consultant. These were scores from zero to five per plate, or a total of forty points per set were summarized by classroom. These results indicated that nearly half of the pupils involved showed a gain in "creativity" based on rating score improvement. This technique and device has some limitations; however, the consultant reported that it may also be useful in helping to identify psychological problems.

The music consultant position was filled by two different people. One served during the first two years and a new one served the past year. Like the art consultant, the music consultant made regular visits to most of the supplementary classrooms. During the second year of the project, the music consultant conducted an experiment, "A Technique to Assess the Preference for Intensity of Musical Stimuli in Young Hard-of-Hearing Children." The complete text of the experiment appeared in the second evaluation report and in the 1969 spring issue of the Journal of Music Therapy.

The music consultant during the past year also chose to experiment with the hearing handicapped pupils. A study was conducted in which the consultant experimented with various media to stimulate response to auditory sounds and determine the degree of residual hearing. A copy of this appears in Appendix B of this report.

In the same manner as the other consultants, the physical education consultant visited most of the supplementary classrooms on a regular schedule. The consultant developed a sequence of games and exercises appropriate to the age level and type of pupils in each classroom. Two tests, mentioned in Chapter IV for each classroom, were used as a measure of progress toward better physical fitness. American Association for Health, Physical Education and Recreation Youth Fitness Test results were reported earlier for each classroom in which it was used. The Kraus-Weber Test of Minimal Muscular Fitness was also administered in most classrooms. The basic scoring on this test was a pass or fail, even though the test consists of six parts.

The physical education consultant adapted a partial scoring system which utilized a point system for recording results. Of the six tests, tests one, two, and six were given a partial score between zero and one in tenths due to the position of the pupil in attempting the required movement. Tests three, four, and five involved holding a position for ten seconds. This resulted in a partial score from zero to one in tenths for the number of seconds the position was held. Using the partial scoring system, a pupil passing all six tests received a point score of six, while a partial score could be recorded in tenths for any value between zero and six.

Available results during the project for each classroom on the AAHPER were summarized in Chapter IV. Kraus-Weber results by age group on the pass-fail basis for the past two years are presented here.

TABLE 54

KRAUS-WEBER MINIMUM MUSCULAR FITNESS TEST
RESULTS FOR HANDICAPPED PUPILS

1967-68

Time of Testing	Number of Pupils	Number Passing	Percent Passing
		Ages 3-5	
*Fall	3	0	0
*Winter	6	0	0
		Ages 6-8	
Fall	17	3	18%
Winter	21	8	38%
		Ages 9-11	
Fall	19	5	26%
Winter	21	6	29%
		Ages 12-14	
Fall	5	2	40%
Winter	6	3	50%
		Ages 15-21	
Fall	9	1	11%
Winter	9	2	22%

of the Journal of Music Therapy.

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TABLE 54 (Cont'd)

1968-69

Time of Testing	Number Of Pupils	Number Passing	Percent Passing
	Ages 3-5		
Fall	7	1	16%
Winter	7	0	0
	Ages 6-8		
Fall	11	0	0
Winter	13	2	15%
	Ages 9-11		
Fall	16	3	13%
Winter	23	9	39%
	Ages 15-21		
Fall	9	1	11%
Winter	10	2	20%

*Fall test administered the latter part of September and winter test the latter part of January

Individual pupil results on the partial scoring system by age groups for the past year are shown in Appendix C.

Table 54 shows that during 1968-69, the twelve to fourteen or junior high age group was not tested. In the six to eight and nine to eleven age groups, a smaller portion of pupils passed during the fall of the past year than the previous year. For the total number of pupils tested in the fall and winter each year, twenty-six percent passed during 1967-68, and nineteen percent passed during 1968-69. No particular explanation of this was given. Examination of results on the partial point scoring system also shows that the performance in various age groups did not show as much gain by group during the past year.

LOCAL SUPPORT FOR CONTINUANCE

During the three year funding period, one function of the Advisory Council for the project was to seek ways of continuing programs and services in the project area. As indicated in Chapter II, only one of the participating school districts felt in a position of providing funds for continuation of all services. None of the private or parochial schools was able to give any financial commitment past the federal funding period. Efforts were made to fund some of the psychological services through the United Fund Agency with no success up to this point in time. Funds from county sources were also solicited for medical services without success. The local school district (Wichita USD #259) was then faced with the choice of continuing as much of the program as possible on its own. Decisions were made and those services and programs which were discontinued were: (1) all services to participating school districts as well as private and parochial schools, (2) contracted psychological services, (3) contracted medical services, (4) one supplementary classroom (Negro underachiever), (5) services of one coordinator, one social worker, one peripatologist, four consultants (art, music, physical education, and resource materials), and (6) two clerical persons. All supplies and equipment normally ordered by these persons were also deleted. The local district did assume approximately $222,000 in programs and services for continuation within the Wichita district. Approximately $170,000 of this was allocated for salaries of personnel involved of which about $30,000 is reimbursed from state sources. Other personnel involved in those areas which were eliminated were reassigned to other programs in the local system.

COMMENTS

Information about the supplementary classroom teachers indicated that the teachers were well prepared for their respective positions. A wide variety of background and type of specialized training was evident as well as experience levels. Interest in additional preparation was shown in additional training completed while working in the project.

The individualized work among pupils in the various types of classrooms does not permit conclusions to be drawn regarding the effectiveness of techniques, materials, and equipment. The list presented earlier merely gives some ways in which various teachers used those materials and techniques with some pupils.

The consultants in art, music, and physical education were involved to a great extent in tasks other than experimentation and/or other evaluation activities. The efforts they made in each area appear to be useful; however, there is still need for further investigation.

The constraints of school budgets and school finance severely limited the development of continuation plans. Problems of finance also plagued the local participating agencies in lending financial support. It did appear that the local school district did assume as much of the programs and services as possible in light of financial burdens. Efforts made to secure additional funding from other sources did open some doors for communication and may allow for better working relations between the schools and various community agencies in the future.

CHAPTER VI

SUMMARY - COMMENTS - CONCLUSIONS

SUMMARY

A three-year project, the Special Education Diagnostic and Resource Center, was operated under Title III, ESEA P.L. 89-10. The project was designed to meet the needs of severely handicapped children and youth in the greater Wichita area. Special services and educational programs were provided for handicapped children referred to the Center. The primary focus of the project was that of providing services which were not available in the area prior to the project.

Implementation of the project involved remodeling a previously used school building for use as the Diagnostic Center. The original proposal included a request for construction grant for a building to house both the Center and the special classroom program. Approval was not forthcoming on the construction grant; hence, alternate decisions had to be made. The supplementary classroom program was carried out in seven, and at times nine, different schools in Wichita where classroom space was available.

Initial efforts were those of creating an awareness of the needs of handicapped children. Notification of available services and some guidelines for identification of pupils were provided for all schools, public, private, and parochial, in the project area. An advisory council was formed early in the project to assist in providing the communication of needs in the project area and to provide counsel for the decision makers in the project. The council was representative of all schools in the project area, public, private, and parochial and various community agencies, the local state university and the State Department of Public Instruction.

Other information regarding the services provided by the Center was provided by five thousand brochures. These were distributed locally as well as to various locales in the state and other states requesting information.

Reactions of school personnel and others surveyed during the project indicated success in creating the awareness of need for providing services for handicapped children. Lack of adequate Center staff to handle all the pupils in need of service was cited as one inadequacy by the school personnel and others in the project.

Evaluative and diagnostic services were provided by the Center staff as a team. Pupils were identified and referred to the Center by school personnel and others. A referral system was developed and refined which allowed for problem identification and other data about the pupil to be submitted for Center staff consideration on a revised referral form.

Success of the provision of evaluative and diagnostic services was evidenced by the continued number of referrals and requests for services during the three-year period. Recommendations resulting from these services were effective in terms of those able to remain in or return to regular classroom programs after other services had been provided.

Specialized supportive services were provided in the following areas: Consultation for pupils and parents; special consultants in art, music, physical education, and resource materials; and mobility training and library and materials services for the visually handicapped or blind pupils. In-service training programs were also provided for many teachers, counselors, administrators, and others during the project period. Services were also provided by two social workers. These services were not previously available to schools in this area.

Persons receiving these services responded favorably regarding the type and quality of the supportive services provided. The impact of direct consultive services was felt in the supplementary classroom program.

A special or supplementary classroom program was provided in two major categories: (1) psychologically handicapped and (2) physically handicapped. Classrooms provided in the psychologically handicapped area included: Learning disabilities, emotionally disturbed, trainable mentally retarded, and Negro underachievers. Classrooms for the physically handicapped were provided for the hearing impaired and severely orthopedically handicapped. Approximately two hundred different pupils were served by the classroom program during the three-year period. Nearly forty percent were able to adjust sufficiently to return to regular classroom programs. The age range of pupils served was three years to twenty-four years. Nine to thirteen different classrooms in the two major categories were utilized at various times during the project. Individual pupil success and group success were evidenced by the evaluative test results presented by classrooms in this as well as previous evaluation reports. Non-test sources of data indicated that many pupils were able to improve attitudes, work habits, and ability to function as a member of a group. Indications from follow-up data were that it was difficult to predict how well pupils would perform and achieve after leaving the special classroom program. Supplementary classroom teachers were apparently well qualified for their positions and enthusiastic in their work. Limitations of time and other assigned tasks influenced the extent of experimental work done in the project.

Problems involving school budgets and finance sources from community agencies limited development of a comprehensive continuation plan. The local school district did assume slightly over half the annual operating budget for the project for continuance of nearly all of the supplementary classroom programs and some of the evaluative and diagnostic or supportive services provided during the project period.

COMMENTS

Evaluation of the project was conducted continually and published annually in report form. Each of the two previous evaluation reports were geared toward the attainment or lack of attainment of the four project objectives. Earlier comments indicated that the first three of the four objectives had been attained to the greatest extent and the fourth objective to a lesser degree.

The final report was not unlike the previous reports in terms of attainment of project objectives. More focus was directed toward the effectiveness of programs and procedures in attaining those objectives.

The objective regarding the provision of evaluative, diagnostic, and therapeutic services was observed in terms of the number and types of services provided and the source of pupils for which service was provided. Three hundred to five hundred pupils each year received direct professional service in the medical and psychological areas. This attests to the fact that service was provided. In addition, approximately three hundred other pupils received services provided by Center personnel which were diagnostic or evaluative in nature.

There seemed to be little doubt that supportive services were provided. Members of the Center staff were involved in counseling services for pupils and parents, special consultation services for teachers and others, and providing materials and equipment for various types of handicapped pupils.

The focus of the project was that of service for the individual pupil. The supplementary classroom program provided the greatest amount of service to individual pupils. Nearly two hundred pupils during the three years received special classroom placement. One outcome resulting from working toward the objective was that this provided a "workshop" to enable better methods and procedures to be developed in fulfilling the first objective. Approximately thirty-eight percent of the pupils who were in the supplementary classroom programs were able to progress enough to warrant returning them to regular classroom programs. In terms of the severity of some of the handicaps, this would indicate a fairly high degree of success. Service for about one hundred pupils each year fell short of the proposed goal of two hundred pupils each year in the supplementary classroom program.

The fourth objective was the most difficult to measure. The approach used in the project was that of individually prescribing courses of action for each pupil. Things that appeared effective in dealing with some pupils did not necessarily work effectively for others exhibiting similar difficulties. Some general techniques, materials, and methods were found in each type classroom. It appears that the cooperative efforts of specialized supportive personnel and a receptive, well-trained teacher are the key factors in determining the effective measures to use with individual pupils.

CONCLUSIONS

Project evaluation, in this case, allows for conclusions to be drawn primarily in terms of attainment of project objectives. In terms of measures used, one would have to say that the project was successful. It is possible for a school-oriented center to coordinate activities and services involving the cooperative efforts of the community and provide programs which enable pupils to remain in school who might not otherwise do so.

The project did demonstrate some effective programs worthy of duplication. One such program was the supplementary classroom program. The diagnostic screening procedure and referral procedure were also effective and are examples which other school districts could follow. Coordination of services through one location is apparently an efficient and effective way of providing maximum service for pupils and parents.

APPENDICES

APPENDIX A

INTERVIEW QUESTIONS FOR PROJECT AREA SUPERINTENDENTS AND PRINCIPALS OF PRIVATE OR PAROCHIAL SCHOOLS

The following questions should be answered in terms of the influence you feel the Title III Special Education Diagnostic and Resource Center Project has had in your district (school).

1. Has the Diagnostic Center influenced you or your district (school) to employ additional professional staff to better identify and meet the needs of handicapped children? (e.g. a psychologist, counselor, or special teacher).

2. Have special classroom programs been initiated in your district (school) for handicapped children? If so, how many and what kind?

3. How many pupils in your district (school) have been referred to the Diagnostic Center during the past three years? Do you feel that the Diagnostic Center has provided help for these pupils?

4. As a result of the Diagnostic Center project, do you feel the teacher (or principals) in your district are more aware of the needs of handicapped children?

5. Are teachers (or principals) in your district (school) aware of the various services available to them through the Diagnostic Center?

6. How frequently have teachers (or principals) utilized the services of the Diagnostic Center and/or its personnel?

7. Has in-service training been provided in your district (school) for your staff by the Diagnostic Center?

8. How often and about how many of your staff members in your district (school) participated in in-service activities held at the Diagnostic Center?

9. Have teachers (principals) in your district (school) used any special materials and/or equipment provided by the Diagnostic Center? If so, how well have they accepted these in their classroom programs?

10. What kinds of support and/or resources has your district (school) provided to aid in the operation of the Diagnostic Center?

11. What needs do you feel still exist in your district (school) in providing for handicapped children?

    a. What would you estimate the incidence rate of various types of handicapped pupils? (e.g. learning disabilities, hearing or visually impaired, orthopedically handicapped, mentally retarded).

12. Are programs being planned or developed to serve the handicapped pupils in your district (school)? If so, what assistance has the Diagnostic Center staff been in planning and developing these programs and services for handicapped children?

13. What has been your general reaction to this project.

INTERVIEW QUESTIONS FOR COMMUNITY AGENCY REPRESENTATIVES

The following questions should be answered in terms of the influences you feel (or the agency feels) the Title III Special Education Diagnostic and Resource Center Project has had on your agency or on other community agencies.

1. In what way did the Diagnostic Center project use the services of your agency in planning the project?

2. During the planning stages of this project (during 1964-66), it was estimated that about five percent of the school population was in need of some kind of professional assistance. Did the planners of the project make this known to your agency? In you opinion, has the degree of need changed since 1965?

3. What specific activities or services has the Diagnostic Center utilized from your agency during the past three years?

4. Earlier indications were that services provided for school age pupils would be maintained and that the services of agencies for the Diagnostic Center would be supplemental in nature. Did your agency maintain the same level of services for school age pupils as occurred in 1965? If greater, what estimate would you make in terms of the number of additional pupils you provided service for resulting from Diagnostic Center requests?

5. In what ways did your agency lend support and/or resources to the operation of the Diagnostic Center project?

6. What has been your general reaction to the project?

INTERVIEW QUESTIONS FOR SUPPLEMENTARY CLASSROOM TEACHERS

1. You have been teaching in a special classroom program under Title III. What kind of background and/or special training did you have to qualify for this position? What additional training have you taken since being involved in this project?

2. What kinds of materials have you developed in working with this type of handicapped child? Are there special techniques you have developed to make use of these materials?

3. What kinds of materials, equipment, and teaching techniques have you found to be the most effective in your classroom?

4. What has been the extent of parental involvement in working with the pupils assigned to your classroom?

APPENDIX B

AUDITORY SOUNDS AND VIBRATIONS IN YOUNG HEARING IMPAIRED CHILDREN

This work was submitted by the music consultant.

THE PROBLEM

The purpose of this study was to experiment with various media to stimulate responses to auditory sounds, develop vibrating sense, and salvage the residual hearing to its fullest in young hearing impaired children.

SIGNIFICANCE OF THE PROBLEM

The data obtained from the testing may be applied to all areas of auditory training--specifically in rhythm, inflection, and pitch.

RESUMÉ OF RELATED LITERATURE

The following bibliography was reviewed. Material for the type of experiment being done in the classroom for the Hearing Impaired was not available.

Artez, Wade and Walman. Hearing and the School Child. Washington, D.C.: The Volta Bureau, 1930.

Canfield, Norton. Hearing. Garden City, New York: Doubleday and Co., Inc., 1959.

Davis, Hallowell. Hearing and Deafness. New York City, New York: Murray Hill Books, Inc., 1947.

Di Carlo, Louis M. The Deaf. Englewood Cliffs, N. J.: Prentice-Hall Inc., 1965.

Fiedler, Miriam Forster. Deaf Children in a Hearing World. New York City, N.Y.: The Ronald Press Co., 1952.

Getz, Steven. Environment and the Deaf Child. Springfield, Illinois: Charles C. Thomas, 1956.

Goldstein, Max A. Problems of the Deaf. St. Louis,Mo.: The Laryngoscope Press, 1933.

Goldstein, Max A. The Acoustic Method. St. Louis, Mo.: The Laryngoscope Press, 1939.

Myklebust, Helmer R. Auditory Disorders in Children. New York, N.Y.: Grune and Stratton, 1954.

PROCEDURE

PHASE I

The initial experiment to develop vibratory sense began with the use of a record player and a detachable amplifier. The amplifier was placed directly against the vocalizer of the hearing apparatus. The beat was tapped on the child as he felt the vibration. To continue the development and understanding of vibration, the following instruments were introduced: Sousaphone, Indian and bass drums, cymbals and double bass. The rim of the sousaphone's bell served as a vibration area for each child to touch lightly with finger tips. Inside the bell of the sousaphone each child experienced vibration with his stocking feet. The children also sensed vibration of the drum heads through the feet. A game "Hide Your Eyes" was used in conjunction with the cymbals. Upon hearing and/or sensing the crash of the cymbals the child raised his head. Another use was to feel the vibrating cymbals following a cymbal crash. A tactile experience was used on the strings and back of the double bass. A climax to the presentation of the instruments was done by taking the children to sense and/or hear a concert performed by the Wichita State University Symphony Orchestra.

The experiment was continued with the addition of an electric stethoscope to the record player and amplifier. The stethoscope had a range of 0 to 10 decibels. The bell (chest piece) of the stethoscope was taped to the amplifier. The aid was removed and replaced with the ear tips of the stethoscope. It appeared that three children, with moderate to severe hearing loss, responded favorably. The stethoscope was then replaced with stereo earphones.

RESULTS

The response continued to show no gain but for the few with some hearing. It was questioned as to whether there was need for stronger amplification with an addition of speakers, hopefully to reach more children.

PHASE II

The last phase of the experiment continued with the use of two Jensen 12", 100 watts maximum power speakers and an amplifier of 70 watts to each speaker.

RESULTS

It appears that success was met when the increase in volume intensity was strengthened to the degree whereby all children were able to respond.

CONCLUSIONS

It appears that this study was an aid in teaching speech sounds, supplied an understanding and awareness of a rhythmic beat, aided in developing residual hearing and would be of value in all classes for hearing impaired children.

APPENDIX C

KRAUS-WEBER MINIMUM MUSCULAR FITNESS TEST RESULTS FOR HANDICAPPED PUPILS, AGE 3-5 - PARTIAL POINT SCORING METHOD
1968-69

Pupil	Test 1 Fall	Winter	Test 2 Fall	Winter	Test 3 Fall	Winter	Test 4 Fall	Winter	Test 5 Fall	Winter	Test 6 Fall	Winter	Total Points Fall	Winter
1	0.25	1.00	0.25	0.25	1.00	0.40	0.40	1.00	1.00	1.00	1.00	1.00	3.90	4.65
2	0.25	0.25	0.25	0.25	0.30	0.20	0.20	0.20	0.20	0.10	1.00	1.00	2.20	2.00
3	0.25	0.50	0.25	0.25	0.30	0.30	0.20	0.40	0.50	1.00	0	0	1.50	2.45
4	0.25	0.50	0.25	0.25	1.00	1.00	0.40	1.00	0.30	0.30	1.00	1.00	3.20	4.05
5	0.25	1.00	0.25	0.75	0.50	0.30	1.00	0.60	1.00	0	1.00	0	4.00	2.65
6	1.00	0.25	1.00	0	1.00	0.20	1.00	1.00	1.00	0.10	1.00	1.00	6.00	2.55
7	0.25	0.25	0.25	0.25	0.20	0.30	0.40	1.00	0.20	0.70	0	1.00	1.30	3.50
Mean Scores	0.36	0.54	0.36	0.29	0.61	0.39	0.51	0.74	0.60	0.46	0.71	0.71	3.30	3.12

KRAUS-WEBER MINIMUM MUSCULAR FITNESS TEST RESULTS FOR HANDICAPPED PUPILS, AGE 6-8 - PARTIAL POINT SCORING METHOD

1968-69

Pupil	Test 1		Test 2		Test 3		Test 4		Test 5		Test 6		Total Points	
	Fall	Winter	Fall	Winter	Fall	Winter	Fall	Winter	Fall	Winter	Fall	Winter	Fall	Winter
1	1.00	1.00	0.25	0.25	0.40	0.60	1.00	1.00	0.50	1.00	1.00	1.00	4.15	4.85
2	1.00	--	1.00	--	0.80	--	1.00	--	1.00	--	0	--	4.80	--
3	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.50	0	1.00	5.00	5.50
4	--	1.00	--	1.00	--	1.00	--	1.00	--	0.90	--	0	--	4.90
5	--	1.00	--	0.25	--	0.90	--	1.00	--	0.40	--	0	--	3.55
6	1.00	1.00	1.00	1.00	0.70	1.00	1.00	1.00	1.00	1.00	0	0	4.70	5.00
7	0.75	1.00	1.00	1.00	0.70	1.00	0.70	1.00	1.00	1.00	1.00	1.00	5.15	6.00
8	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	0	--	5.00
9	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	0	--	5.00
10	1.00	1.00	0.25	1.00	0.50	0.40	1.00	0.50	1.00	1.00	0	0	3.75	3.90
11	0.50	--	0.25	--	1.00	--	1.00	--	1.00	--	0	--	3.75	--
12	1.00	1.00	0.25	0.50	1.00	1.00	1.00	1.00	0	0.30	1.00	1.00	4.25	4.80
13	1.00	--	1.00	--	0.80	--	1.00	--	0.60	--	1.00	--	5.40	--
14	1.00	1.00	0.25	0.50	0.40	0.20	0.40	0.40	0.30	0.30	0	0	2.35	2.40
15	1.00	1.00	1.00	0.50	0.90	0.60	0.50	1.00	0.60	0.60	1.00	1.00	5.00	4.75
16	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	6.00
Mean Scores	0.93	1.00	0.66	0.77	0.75	0.82	0.87	0.91	0.73	0.77	0.45	0.46	4.39	4.74

KRAUS-WEBER MINIMUM MUSCULAR FITNESS TEST RESULTS FOR HANDICAPPED PUPILS, AGE 9-11 - PARTIAL POINT SCORING METHOD

1968-69

Pupil	Test 1		Test 2		Test 3		Test 4		Test 5		Test 6		Total Points	
	Fall	Winter	Fall	Winter	Fall	Winter	Fall	Winter	Fall	Winter	Fall	Winter	Fall	Winter
1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0	1.00	5.00	6.00
2	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.40	1.00	1.00	1.00	0	6.00	4.40
3	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	6.00	--
4	1.00	1.00	1.00	1.00	0.60	1.00	1.00	1.00	0.80	1.00	1.00	1.00	5.40	6.00
5	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0	0	5.00	5.00
6	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	6.00	6.00
7	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0	0	5.00	5.00
8	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	0	--	5.00
9	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	6.00
10	--	1.00	--	1.00	--	1.00	--	0.20	--	0.40	--	1.00	--	4.60
11	1.00	--	0.50	--	0.60	--	1.00	--	1.00	--	1.00	--	5.10	--
12	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	6.00
13	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	6.00
14	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	6.00
15	--	1.00	--	0.25	--	0.60	--	0.80	--	1.00	--	0	--	3.65
16	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	0	1.00	4.90	6.00
17	--	1.00	--	0.25	--	0.50	--	0.60	--	0.90	--	0	--	3.25

18	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	0	--	5.00	--
19	1.00	1.00	1.00	1.00	0.50	0.90	0.30	1.00	0.70	1.00	1.00	0	3.50	4.90
20	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	0	--	5.00
21	--	1.00	--	1.00	--	0.30	--	0.50	--	0.60	--	0	--	3.40
22	1.00	1.00	1.00	1.00	0.40	1.00	1.00	1.00	0.90	0.50	1.00	1.00	5.30	5.50
23	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	0	--	5.00
24	1.00	1.00	1.00	1.00	1.00	0.60	1.00	1.00	1.00	0.70	1.00	1.00	6.00	5.30
25	1.00	1.00	0.25	0.25	0.40	0.20	0.20	0.20	0.30	0.90	0	0	2.15	2.55
26	--	1.00	--	0.25	--	0.60	--	1.00	--	0.80	--	0	--	3.65
27	1.00	1.00	0.50	1.00	0.20	0.20	1.00	1.00	0.90	1.00	0	0	3.60	4.20
28	--	1.00	--	1.00	--	0.60	--	0.50	--	0.60	--	0	--	3.70
29	1.00	1.00	0.50	1.00	0.40	0.50	0.10	1.00	0.30	0.70	0	0	2.30	4.20
30	--	1.00	--	1.00	--	0.50	--	0.20	--	0.30	--	0	--	3.00
31	--	1.00	--	0.75	--	0.20	--	0.50	--	0.30	--	0	--	2.75
32	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	6.00
33	--	1.00	--	1.00	--	0.20	--	0.20	--	0.40	--	0	--	2.80
Mean Scores	1.00	1.00	0.86	0.89	0.76	0.76	0.84	0.80	0.87	0.84	0.50	0.39	4.77	4.70

KRAUS-WEBER MINIMUM MUSCULAR FITNESS TEST RESULTS FOR HANDICAPPED PUPILS, AGE 15-21 - PARTIAL POINT SCORING METHOD
1968-69

Pupil	Test 1		Test 2		Test 3		Test 4		Test 5		Test 6		Total Points	
	Fall	Winter	Fall	Winter	Fall	Winter	Fall	Winter	Fall	Winter	Fall	Winter	Fall	Winter
1	0.25	0.25	0.25	0.25	0.30	1.00	0.10	0.20	0	1.00	0	0	0.90	1.70
2	1.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	5.50	6.00
3	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	6.00	6.00
4	1.00	1.00	0.25	0.50	1.00	1.00	1.00	0.10	0	0.10	1.00	1.00	4.25	3.70
5	1.00	1.00	1.00	0.10	0.70	0.50	0.90	0.30	0	0	1.00	0	4.60	2.80
6	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0	0.30	0	0	4.00	4.30
7	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	0	--	5.00
8	1.00	1.00	1.00	1.00	0.20	0.30	0.20	0.30	0	0	0	0	2.40	2.60
9	1.00	1.00	1.00	1.00	0.40	0.80	1.00	1.00	1.00	1.00	0	0	4.40	4.80
10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.40	0	1.00	1.00	1.00	5.00	5.40
Mean Scores	0.92	0.93	0.78	0.88	0.73	0.86	0.80	0.63	0.33	0.64	0.56	0.40	4.17	4.23